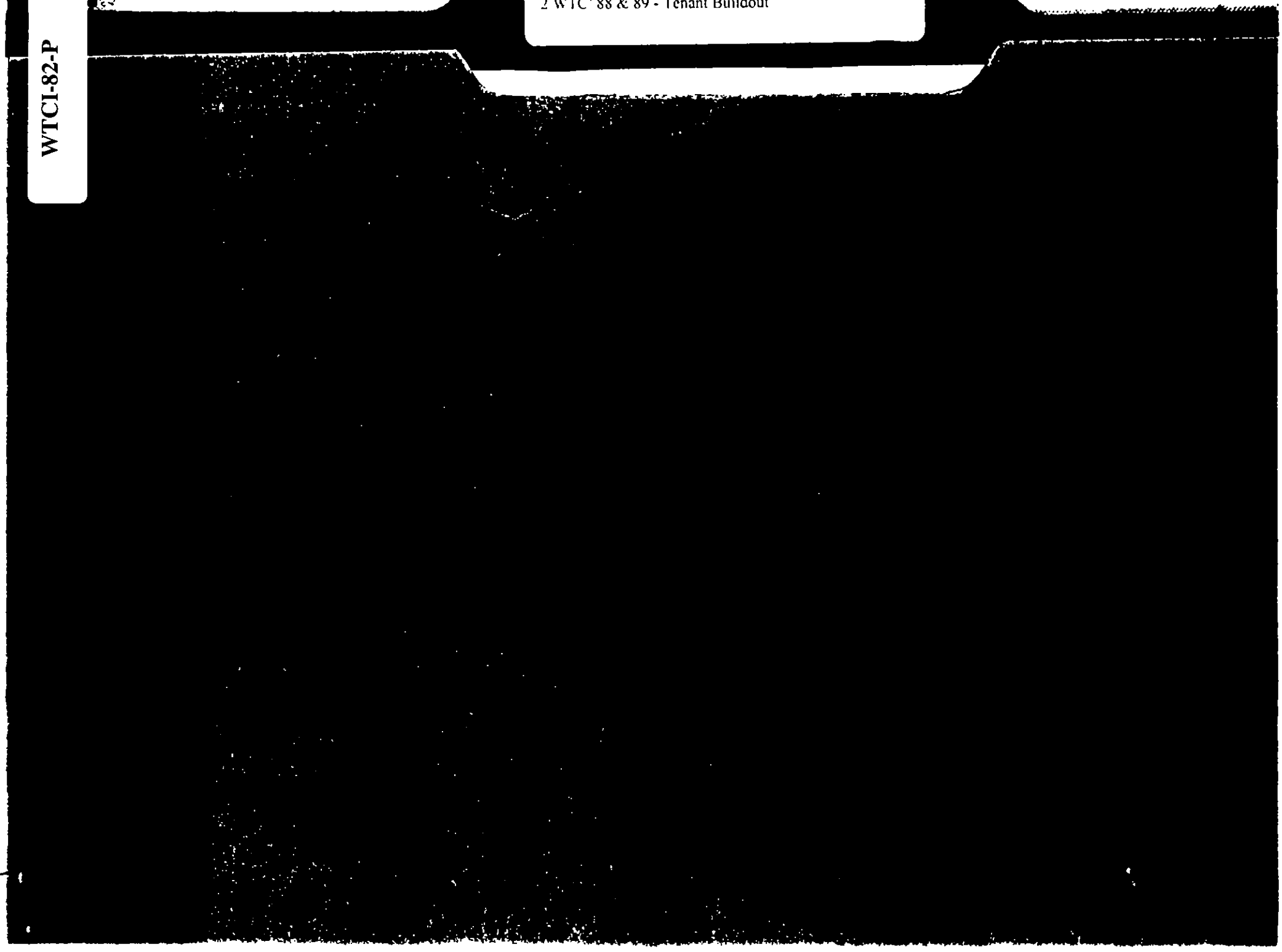
WC99-2114 KEEFE BRUYETTE et al

2 WTC '88 & 89 - Tenant Buildout

WTCI-82-P



Quality Assurance Division
Design Standards

TAA No. WC99-2114 Charge Code: W02-99 2114

Tenant: KEEFE BRUYETTE & WOODS

REVIEW STATUS

Submission No. & Date	Res-ponse To	Coordi-nator's Initial	Memo Date	Appro-val Date	Faci-lity Rider	Outstan-ding Com-ments	Remarks/Status	DWG/SPEC Location
1) 2/18/99		MLP	3/19/99	-	-	27	AUDIT.	

THE PORT AUTHORITY OF NY & NJ

ONE WORLD TRADE CENTER
NEW YORK, NY 10048

(212) 435-7000
(201) 961-6600

November 17, 1999

Guy Woelk
Keefe, Bruyette & Woods, Inc.
Two World Trade Center 85th Floor
New York, NY 10048

RE: **Keefe, Bruyette & Woods, Inc. - Two World Trade Center - 88th and 89th Floors**
TAA - 992114 – Submission Four – Review Comments – Self Certification

Dear Mr. Woelk:

This letter responds your transmittal dated, October 13, 1999, requesting a review of the documents listed on Attachment "A" to this letter. Tenant Alteration Application , which was Released for Construction under the Professional Certification Program on , has been reviewed, producing the comments listed in Attachment "B" to this letter.

This job will not be audited by the Quality Assurance Division.

Any changes to the scope-of-work must be submitted to the Port Authority for review prior to the commencement of associated work. Only contract documents reviewed by this office are to be released to the field for construction.

Incorporate the requirements of the comments into the documents, respond to them in writing and submit the required information for our record along with five (5) sets of the revised drawings by November 22, 1999. The revised documents must be signed and sealed by a Professional Engineer or Registered Architect licensed to practice in the State of New York. Please indicate all revisions and dates clearly.

All correspondence or inquires should be directed to, Project Manager, at The Port Authority of New York and New Jersey, One World Trade Center, 88 South, New York, N.Y. 10048, (212)-435-2266, fax (212) 435-8168.

Sincerely,

Jennifer Richardson, Supervisor
Tenant Project Management
The World Trade Department

/cnb

THE PORT AUTHORITY OF NY & NJ
QUALITY ASSURANCE DIV
ENGINEERING DEPT
DEC 2 1999
RECEIVED

Bcc: S. Bhol, J. Castaldo, T. Cullen, S.P. Chaio, G. Daly, A. Fadavi, T. Koebel, P. Majmudar, J. Napolitano, J. Richardson, J. Ruiz, N. Seliga, Central File, Chrono File

THE PORT AUTHORITY OF NY & NJ

ONE WORLD TRADE CENTER
NEW YORK, NY 10048

(212) 435-7000
(973) 961-6600

September 15, 1999

Guy Woelk
Keefe, Bruyette & Woods, Inc.
Two World Trade Center 85th Floor
New York, N.Y. 10048

RE: Keefe, Bruyette & Woods, Inc. – Two World Trade Center – 88th and 89th Floors
TAA - 992114 - Submission Three – Review Comments – Self Certification

Dear Mr. Woelk:

This letter responds your transmittal dated, August 24, 1999, requesting a review of the documents listed on Attachment "A" to this letter. Tenant Alteration Application 992114 which was Released for Construction under the Professional Certification Program on April 12, 1999, has been reviewed, producing the comments listed in Attachment "B" to this letter.

This job was audited by the Quality Assurance Division.

Any changes to the scope-of-work must be submitted to the Port Authority for review prior to the commencement of associated work. Only contract documents reviewed by this office are to be released to the field for construction.

Incorporate the requirements of the comments into the documents, respond to them in writing and submit the required information for our record along with five (5) sets of the revised drawings by. The revised documents must be signed and sealed by a Professional Engineer or Registered Architect licensed to practice in the State of New York. Please indicate all revisions and dates clearly.

All correspondence or inquires should be directed to Piyush Majmudar, Project Manager, at The Port Authority of New York and New Jersey, One World Trade Center, 88 South, New York, N.Y. 10048, (212)-435-2266, fax (212) 435-8168.

Sincerely,

Jennifer Richardson, Supervisor
Tenant Project Management
The World Trade Department

/cnb

J. Cetra (CRI)

THE PORT AUTHORITY OF NY & NJ
QUALITY ASSURANCE DIV.
ENGINEERING DEPT.
20.
RECEIVED
W99-2114

Bcc: S. Bhol, E. Daly, F. DeMartini, A. Fadavi, T. Koebel, P. Majmudar, J. Napolitano, J. Richardson, J. Ruiz, Central File, Chrono File

THE PORT AUTHORITY OF NY & NJ

ONE WORLD TRADE CENTER
NEW YORK, NY 10048

(212) 435-7000
(201) 961-6600

July 20, 1999

Guy Woelk
Keefe, Bruyette & Woods, Inc.
Two World Trade Center 85th Floor
New York, N.Y. 10048

Re: **Keefe, Bruyette & Woods, Inc. - Two World Trade Center –88th and 89th Floors**
TAA 992114 – Submission Two – Review Comments – Self Certification

Dear Mr. Woelk:

This letter responds to your submission dated May 7, 1999 requesting a review of the documents listed in Attachment A to this letter. Tenant Alteration Application 992114 has been approved subject to compliance with the comments listed in Attachment B to this letter.

Incorporate the requirements of the comments into the documents, respond to them in writing and submit the required information for our record along with eight (8) sets of the revised drawings by July 27, 1999. The revised documents must be signed and sealed by a Professional Engineer or Registered Architect licensed to practice in the State of New York. Please indicate all revisions and dates clearly.

Any changes to the already approved scope of work must be submitted to The Port Authority of New York and New Jersey for review and approval prior to the commencement of associated work. Only contract documents reviewed and approved by this office are to be released in the field for construction.

All correspondence or inquiries should be directed to Piyush Majmudar, Project Manager, at The Port Authority of New York and New Jersey, One World Trade Center, 88th Floor South, New York, N.Y. 10048. Telephone (212) 435-2266, fax (212) 435-8168.

Sincerely,

Jennifer Richardson, Supervisor
Tenant Project Management
World Trade Department

/cnb

cc: J. Cetra (CRI)

THE PORT AUTHORITY OF NY & NJ
QUALITY ASSURANCE DIV.
ENGINEERING DEPT.
- 2
RECEIVED
NOTED:
REFERRED TO: W99-2114

bcc: S. Bhol, E. Daly, F. DeMartini, A. Fadavi, T. Koebel, T. Lynch, P. Majmudar, J. Napolitano, J. Richardson, J. Ruiz, Central File, Chrono File

THE PORT AUTHORITY OF NY & NJ

ONE WORLD TRADE CENTER
NEW YORK, NY 10048

(212) 435-7000
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THE PORT AUTHORITY OF NY & NJ
QUALITY ASSURANCE DIV.
ENGINEERING DEPT.
APR 15 1999
RECEIVED
NOTED:
REFERRED TO: WTC 99-2114

April 12, 1999

Guy Woelk
Keefe Bruyette and Woods
85th Floor, Two World Trade Center
New York , N.Y. 10048

Re: **Keefe Bruyette and Woods – Two WTC, 88th and 89th Floor – TAA 992114 Submission One – Tenant Built Out Space – Self Certification – Review Comments**

Dear Mr. Woelk:

This letter responds to your submission dated February 23, 1999, forwarding for your review the documents listed in Attachment "A". Tenant Alteration Application 992114 which was released for construction under the Professional Certification Program on April 6, 1999 has been reviewed, producing the comments listed in Attachment "B" to this letter.

Incorporate the requirements of the comments into the documents, respond to them in writing and submit the required information for our record along with eight (8) sets of the revised drawings by April 23, 1999. The revised documents must be signed and sealed by Professional Engineer or Registered Architect licensed to practice in the State of New York. Please indicate all revisions and dates clearly.

Any changes to the scope of work must be submitted to the Port Authority for review before the beginning of such work.

All correspondence or inquiries should be directed Piyush Majmuda, Project Manager, at One World Trade Center, 88 South, New York, New York 10048, (212) 435-2266.

Sincerely,

Jennifer Richardson

Jennifer Richardson, Supervisor
Tenant Project Management
World Trade Department

/cnb

cc: John Cetra/Ruddy Inc., P. Majmudar

Bcc: S. Bohl, A. Fadavi, T. Koebel, J. Napolitano, R. Rafferty, J. Ruiz, D. Marin, Central File, Chrono File.

ATTACHMENT B - LIST OF COMMENTS
TAA #992114 - FIRST SUBMISSION
88TH, 89TH FLOOR, 2 WTC
SELF CERTIFICATION PROJECT
KEEFE BRUYETTE & WOODS

QUALITY ASSURANCE DIVSION

GENERAL

1.(Q) Drawing A-003. All items subject to Controlled Inspections shall be listed on the plans in compliance with the NYC Building Code Section 27-132 and 27-136.

ARCHITECTURAL

2.(Q) Drawing EG-101:

a) Provide an exit sign at the following locations as per Code Section 27-385:

i) On the South side of Door 88-03.
ii) On the West side of Hallway 8878 North of Door 88-93.
iii) At the West entrance to Rooms 8862 and 8863.

b) Provide a directional exit sign at the following locations as per. Code Section 27-386:

i) In Hallway 8880, 4 feet South of Door 88-16.
ii) In Hallway 8879, 4 feet Northeast of Door 88-99.

c) Reconcile Drawing EG-101 with Drawing E388L showing the correct locations of exit and directional exit signs.

3.(Q) Drawing EG-102:

a) Provide an exit sign at the following locations as per Code Section 27-385:

i) On Conference side of Door 89-48.
ii) On Office side of Doors 89-52 and 89-64.

b) Provide a directional exit sign 20 feet north of Door 89-24, as per Code Section 27-386.

c) Reconcile Drawing EG-102 with Drawing 389L showing the correct locations of exit and directional exit signs.

ATTACHMENT B - LIST OF COMMENTS
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88TH, 89TH FLOOR, 2 WTC
SELF CERTIFICATION PROJECT
KEEFE BRUYETTE & WOODS

ARCHITECTURAL - cont.

4.(Q) Drawing A-2. Please add a note that removal and demolition work shall be in compliance with Article 6, Subchapter 19 of the NYC Building Code, "Demolition Operation".

5.(Q) Drawing A-503, Details 15 and Drawing A-506, Detail 4:

a) On the walls with glass doors and glass panels, indicate glass markings in compliance with the BS&A Calendar #501-68-SR.

b) Glass in walls shall be safety glass as per Code Section 27-651.

6.(Q) Drawing A-701. The handrail extensions shall be in compliance with ADA Section 4.9.4 and Figure 17.

ARCHITECTURAL/ELECTRICAL

7.(Q) Drawing A-010. The hardware sets show magnetic locks utilizing "request to exit" buttons to unlock the door from the egress side, NYC Building Code Section 27-371(j)(1)a, requires that doors in the path of egress open freely from the egress side. An MEA approved releasing means, such as a panic bar with an integral switch approved for use with that model magnetic lock, may be used instead. Please revise the design to comply with the Code.

ELECTRICAL

8.(Q) Drawing E-103, Panel Schedules. Appliance branch circuits that are permitted to have a 20A branch breaker trip rating at 120V, cannot have more than two (2) outlets. Several such circuits show more than this number. See NYC Electrical Code Section 27-3169. General purpose 120V branch circuits are limited to no more than a 15A branch breaker trip rating, as per Code Section 27-3167.

MECHANICAL

9.(Q) Approved duct mounted smoke detectors shall be provided for all new air conditioning units with a capacity of 2,000 CFM or more, as required by NYC Building Code RS 13-1, Section 4-3.

10.(Q) Drawing M-388:

a) Mechanical exhaust systems shall be provided for the two new private toilets, as per NYC Building Code, Section 27-759(c). Also, the volumes of exhaust air from the existing public toilets have not been defined on the plan to verify their compliance with the code.

b) An independent purge system shall be provided for the UPS room to be protected by the clean agent fire extinguishing system. See NYC Building Code, Section 27-754(e). Also, please note that the return air outlet in the UPS room tapped to the base building system's return air duct will not be active for extended periods of time. Provide sufficient diffusion of the gases generated by the stationary electrical storage battery in this room to prevent the accumulation of an explosive mixture, as required by NYC Electrical Code, Section 27-3158(a).

MECHANICAL -cont.

c) The function and the diameter of the piping serving the new air conditioning units shall be indicated on the drawing. Show on the plan condenser water piping for the UPS room air conditioning unit CRAC-8-3. See NYC Building Code Section 27-157.

d) The condensate drain pipe in the Janitor's Closet, shall comply with NYC Building Code RS-16, Section P111, for indirect waste piping. Note that any receiving fixture must have a water seal of at least 2 inches, protected from evaporation, as per RS-16, Sections P105.1(e) and (f).

11.(Q) Drawing M-389:

a) The extent of changes and rebalancing of toilet exhaust outlets for the existing public toilet is not clearly shown on this plan; e.g., Men's Toilet 8989 requires at least 200 CFM exhaust, but it is designed for 120 CFM only. See NYC Building Code Section 27-759(c)(2). It shall be verified by computation that the required volumes of exhaust will be accomplished from the new private Bathroom 8914 through the long exhaust shown connected to the base building toilet exhaust system without a booster fan.

b) The Condensate drain piping from the new air conditioning units AC-89-2 and AC-89-3 shall be shown. Show on the plan the manner of termination of the condensate in the Janitor's Closet. See NYC Building Code RS-16, Section P111, for indirect waste piping. Note that any receiving fixture must have a water seal of at least 2 inches, protected from evaporation, per Code RS-16, Section P105.1(e) and (f).

MECHANICAL - cont.

c) Several supply air duct branches from the base building, as well as supplemental air handling units, have been shown as not connected to any supply air outlet. See NYC Building Code Section 27-157. Also, the 10 x 6 return/exhaust duct from the Pantry 8920 does not have a defined termination point.

PLUMBING

12.(Q) Drawing P-301. Provide pressure reducing valves for water supplies to the pantry sink in Room 8940. See Code RS-16, Section P107.5(d).

STRUCTURAL

13.(Q) Drawing A-013, Miscellaneous Ceiling Details:

a) Show the elevation of the Typical Floor Double Truss, as per Tenant Construction Review Manual (TCRM), Attachment S2, and locate sections and details shown on this sheet.

b) Ceiling Details. Indicate the following items on the details in compliance with NYC Building Code and TCRM, Attachment S2, Drawing S2, Notes:

i) Concrete Anchors. Indicate manufacturer, type, size and embedment length of approved anchors.

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SELF CERTIFICATION PROJECT
KEEFE BRUYETTE & WOODS

STRUCTURAL - cont.

ii) Ceiling Hangers. Specify the hangers to be galvanized.

iii) Carrying Channel. Indicate that the minimum weight of the hangars shall 590 lbs. per 1000 lin. ft.

iv) Caddy Gat Clamps. Specify catalog number of the NYC approved channel clamp.

c) The ceiling suspension system shown is for the Double Trussed Area of the WTC only. Please provide ceiling suspension system details for the core area, as per NYC Building Code, RS 5-16.

14.(Q) Drawings A-101 and A-102, 88th and 89th Floor Plans:

a) Indicate location and loads for all machinery and equipment weighting in excess of 1000 pounds. See Code 27-(b)3 and TCRM, Section 6.V.B.4.

STRUCTURAL - cont.

b) Verify with calculations that:

i) The existing construction and its connections are not overstressed in the following areas: computer rooms, supply and storage rooms, UPS rooms, equipment rooms, file rooms, record storage and file storage rooms. The loads for file cabinets and shelves shall be as per WTC criteria.

ii) The existing construction and its connections are not overstressed by the added weight of the concrete raised floor and concrete pads, as shown on Drawing A-809.

15.(Q) Drawings S-1 and S-2:

a) Please verify that the existing beams, proposed to be removed for the new stair opening, are not part of the building lateral load resisting system.

b) Investigate the adequacy of the horizontal floor diaphragm to resist lateral forces when the proposed openings for the new stairs are cut.

16.(Q) Drawing S-2, Details A, B and D. Indicate size of the hanger rod supporting intermediate stair platform.

FIRE PROTECTION

17.(Q) Technical Specification Section 15301:

a) Subsection 3.9C: Replace second sentence with "Pans shall be 18 gauge copper, reinforced to prevent sagging, with the edges of the pans turned up 6 inches on all sides. Braze the corner to make the pans watertight. Support the pan with hangers."

FIRE PROTECTION -cont.

b) Subsection 2.2G: Reliable Model G4 is used in all finished areas. Reliable Model G (upright or pendent) is used in areas without hung ceilings. Revise accordingly.

19.(Q) Technical Specification Section 15308:

a) Subsection 2.2.C.1: Revise the first sentence to read "...or a maximum of 1/2" clearance..."

b) Subsection 2.2.C.3: Revise to read "The space between the pipe and its sleeve shall not exceed one-half inch."

c) Subsection 2.6 A: Revise the first sentence to read "All piping shall be identified by self adhesive pipe..."

d) Subsection 3.1 A-1: Revise to read "...for two (2) hours, or at 50 psi in excess of the maximum pressure, when the maximum pressure to be maintained in the system is in excess of 150 psi."

20.(Q) Technical Specification Section 15311:

a) Subsection 2.1H: Add maximum hanger spacing to the schedule.

b) Subsection 3.1: Add the following subsections:

H. Clevis hangers are required on sprinkler piping larger than one inch; general purpose hangers may be used on one inch sprinkler piping only.

I. Hangers shall be suspended from the beam clamps, brackets, fish plates, inserts or other approved means. Drilling/anchoring systems will be permitted into the concrete only with the approval by the Architect and the PA/WTD. The use of powder activated tool fastening system is not permitted.

J. Provide protection shields for all insulated piping at points of support. Shields shall be 12 inches long, galvanized steel plate with a radius suitable for the required applications including insulation.

K. Tabs in the metal deck construction shall not be used to support pipe or equipment.

L. The Contractor shall furnish and install all supplemental structural steel required for spanning between, or connecting to, building structural members, for the hanging or supporting of the piping. Welding to building structural members will not be permitted without the approval of the Architect and the PA/WTD. Drilling and/or bolting into existing structural steel members is not permitted.

M. Hangers may be directly connected to steel beams of building construction by means of approved beam clamps. Smaller pipes may be suspended from cross-sections of pipe or steel angles, which, in turn, shall be securely fastened to building beams or hung from building concrete construction by means of rods and inserts. Supports in each case shall be adequate so as not to unduly stress the building construction.

21.(Q) Technical Specification Section 15316:

a) Subsection 2.1 B.2: Revise to read "Concealed: Cover plate must be chrome plated, not factory painted white; Reliable "G4 concealer."

b) Subsection 3.2F: Add after the second sentence "Sprinkler heads located in corridors shall be located in the center of the corridor.

22.(Q) Technical Specification 15319: New Halon Fire extinguishing systems shall not be installed in the World Trade Center. Common approved clean agent fire extinguishing systems use Halon replacement gases like Inergen or FM-200; submit specification accordingly. See Rules of the City of New York 15-08 for requirements.

23.(Q) Technical Specification 15320:

a) Subsection 1.4: Delete E and F.

b) Subsection 2.2.A: Replace "1-1/2" Figure 2947 brass nozzle" with "1-1/2" Figure 2960 adjustable fog nozzle." Length of hose is 125 feet.

c) Delete Subsections 2.3, 2.4 and 2.5.

d) Subsection 2.6: Revise A to read "2-1/2" Hose Stations: Provide Potter-Roemer Figure 2766, 1-1/2" brass adjustable pressure reducing valve where normal hydrostatic pressure at 1-1/2" hose station exceeds 85 psig." Delete B.

e) Subsection 2.7: Revise A to read "Fire Hose Cabinets: Figure 1104 series recessed with 20 gauge door of style "DE" due panel wire glass." Delete B.

f) Subsection 3.2A: Revise to read "...for two (2) hours, or at 50 psi in excess of the maximum pressure, when the maximum pressure to be maintained in the system is in excess of 150 psi."

24.(Q) Technical Specification 15238:

a) Subsection 2 2C. Revise to read "Insulate all sprinkler piping and fittings within 15 feet of the exterior wall. Pipe insulation shall be one inch thick, Manville Micro LOCK Fiberglass with all service jacket, or an approved equal."

24.(Q) Technical Specification 15238: (cont.)

b) Subsection 2.2D: Revise to read "Fittings, valves, flanges and accessories shall be insulated with compressed Fiberglas and wired in place with 18-gauge galvanized steel wire. The entire surface will be coated with a uniform coat of a fire retardant vapor barrier, and have embedded into the wet coat a layer of Fiberglas tape extending 2 inches into adjacent pipe covering. Pre-molded PVC insulation covers are not permitted.

25.(Q) Drawing FP-100, Building Department Note 11: Revise to read "...as per Table 3-11.6.3(a)."

26.(Q) Drawing FP-300:

a) Hydraulic sprinkler calculation shall be performed with drawing showing all node points, for area of application shown.

b) Plans shall be provided for the UPS room's clean agent gas suppression system showing detection equipment, discharge, calculations, equipment and piping alarm systems and all other safety features. Provide system's sequence of operation, audible and visible alarms within and outside the room, suitable fixed emergency forced ventilation, etc.

c) Note 2 refers to "Detail FP-500"; show the detail on the drawing.

27.(Q) Drawing FP-301:

a) Hydraulic sprinkler calculations shall be performed with drawings showing all node points.

FIRE PROTECTION -cont.

b) Drawing shows sidewall sprinkler heads to protect trading area. Revise to pendant type heads as shown on part section of Drawing FP-100.

WORLD TRADE DEPARTMENT

ARCHITECTURAL

1.(W) Recommendation: Dwg. A-003. Note #1 and 6. Revise terminology to state the wood is fire retardant not fireproof.

2.(W) Dwg. A-004, Note 1.30. Revise note to state that the reproducible drawings shall be Mylars type quality and that an Autocad diskette(s) of all the approved drawings of the project shall be submitted also.

3.(W) Recommendation: Dwg. A-006. State the required UL number on the fire rated partitions. In addition, indicate the thickness of the sound attenuation blankets and the desired STC rating.

4.(W) Recommendation: Dwg. A-503, Provide glass markings as per BS&A regulations Cal. 501-68-SR on Elevation #11 and 15. (Typical note). Refer to also Dwgs. A-506 elevations 2,4, and 5, elevation #8, Dwg. A-514, elevation #2, Dwg. A-905, elevations 2 and 6.

ATTACHMENT B - LIST OF COMMENTS
TAA #992114 - FIRST SUBMISSION
88TH, 89TH FLOOR, 2 WTC
SELF CERTIFICATION PROJECT
KEEFE BRUYETTE & WOODS

ELECTRICAL

5.(W) Why are you feeding the same load twice from the 480/277 bus duct in closet west? Feed once from east and once west.

6.(W) None of the HVAC units, fans are being picked up on emergency power.

7.(W) All corridor emergency lights should be connected to the stairway emergency circuit and the corridor emergency circuit.

8.(W) All EM fixtures in designated tenant space will not be connected to an emergency circuit.

9.(W) Show details of emergency fdr running from 75 to 88. Also, there is presently no emergency substation on 75th Floor and no plans to construct one.

HVAC

10.(W) Drawing M-388:

a) Add the transfer air openings with fire dampers across 11/2 rated partition around Room 8839 (CF Reproduction Room.)
b) Reduce the base building interior air supply from average 1.70 cfm/sf to 0.84 cfm/sf of usable area for **both 88th and 89th floors.**
c) When the base building return air stubs are modified, relocate or add the smoke detectors in front of the openings accordingly. Add the PA/WTC standard detail for smoke detector installation at return air duct.

11.(W) Drawing M-389:

a) Add the fire dampers for all ducts through the 2 hour-rated wall around a conference room 8925.
b) Clarify the Plan Notes 8. Is there any auxiliary ventilation air connected in this TAA? If so, please indicate the capacity and show CVR installation.
c) Delete the induction units located between: 140/141. 211/212, 227/228, and 232/233.
d) Add the note that all the existing base building air valves at supply main shall remain.
e) The following note shall apply to new fire0rated walls at Columns 151 and 214 on the 89th Floor:

Remove existing 4" round flexible duct connection that penetrates the fire rated closure panel within the induction unit cover. Install new 4", 26 gauge galvanized steel circular duct, seal all joints with 3M Company 800 sealant and stainless steel adjustable type clamps. A maximum length of 4' flexible duct shall be used for connection to the induction units.

12.(W) Specification:

a) P15505-1: Add the valve tags for condenser water tie-in:

Provide tag on valves in the base building riser closet or ceiling take-off area indicating the tenant's name, "Supply" or "Return", and floor served. The tag shall be made of either metal or plexiglass, 3 in. x 6in. size, with a green background and black lettering.

12.(W) Specification: (cont.)

b) P 15509-4: Condenser water piping fittings for 3 inches and below shall be cast iron steel. Please revise

c) P 14413 Valves: For condenser water systems, add the following:

HVAC - cont.

Combination Balancing & Shutoff valves shall be the eccentric non-lubricated plug valve, with adjustable memory stop and pressure tap, as manufactured by DeZurik. Rated working pressure and hydrostatic testing pressure (one and one0half times of rated working pressure) must be specified. For Working Pressure up to 175 psig.

1) Sizes 1 in. through 2-1/2 in., DeZurik Series 400, screwed, cast iron conforming to ANSI Class 125.
2) Sizes 3in. and up, DeZurik Series 100, flagged, cast iron conforming to ANSI Class 125.

Condenser Water regulating valve shall be two-way, refrigerant pressure actuated, positive shutoff type, as manufactured by Metrex, Model WCCW-3099-SE-2W Series, design working pressure up to 350 psig. For working pressure 350psig. and higher, indicate the specific working pressure required.

d) P15928-2 Insulation: Please note that condenser water piping insulation is not required.

PLUMBING

13.(W) Please note that PRV is not required on 88 and 89th floors. Please revise all the drawings.

14.(W) When the public toilet rooms are upgraded, floor drain should be provided. Add the PA/WTC standard installation for floor drain.

15.(W) Specification: Piping, fittings, valves specification submitted are not per PA/WTC standard. Please revise to comply the PA/WTC requirements

16.(W) Specification 15415-3 Fixture: Please not that all water closets shall be wall-hung, not floor mounted.

FIRE PROTECTION

17.(W) Drawing FP-300: In UPS room, a clean agent gas suppression system is designed. Please submit the technical information. Provide the exhaust system if required. Refer to PA/WTC Tenant Fire Protection Design Guidelines Section D for a complete detail.

18.(W) Please add the available static pressures for hydraulic calculation: 119.5 psi for 88th floor, 114.3 psi for 89th floor.

FIRE PROTECTION - cont.

19.(W) Show all existing fire standpipe hose racks, hose cabinets and standpipe risers on the floor. Tenant auxiliary hose station(s) is required when any space/room cannot be reached by the existing hose stations using a 20 ft. stream from a nozzle attached to not more than 125 ft. of hose.

ATTACHMENT B - LIST OF COMMENTS
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KEEFE BRUYETTE & WOODS

FIRE PROTECTION - cont.

20.(W) Add the following note on sprinkler floor plans:

The Contractor shall furnish and install mounted shop drawing for each full floor sprinkler installation. The final as-built shop drawing shall be reduced to a width of two feet and mounted on the inside of the door of the existing closet on each floor which contains the control valve. The drawings shall be covered with a sheet of 1/8 in. lexan and screwed to the door. The drawing must show the entire floor sprinkler installations.

21.(W) Specification:

1. P 15316-2: Section 2.1 B: Concealed type "G-4", not G-1.
2. Delete "Halon Extinguishing System."
3. Section 15320-Fire Standpipe & Hose System specification is not per PA/WTC.

   Refer to PA/WTC Tenant Fire Protection Design Guide Specification for detail.

4. Section 15328: Insulate all sprinkler piping and fittings within (15) fifteen feet of exterior wall. Pipe insulation shall be one in. thick, Manville Micro LOCK Fiberglass with all service jacket, or an approved equal. Pre-molded PVC insulation covers are not permitted.

STRUCTURAL

22.(W) Drawings No. F-101 and F-102, 88th Floor, Furniture Plan:

a) Please indicate the size and number of tiers for files and the height for shelves on the plan.
b) Please provide structural calculations demonstrating that the design live load for the floor is not exceeded or that the floor system is not overstressed below storage rooms, file rooms, equipment rooms, computer rooms, UPS rooms, and areas with concentrations of files or paper storage, raised floor, topping slabs or stone finishes. See WTC Structural Guidelines, Drawing No. STR-01.
c) Please identify use of Room No. 8883, Future. If intended for equipment or storage, please provide structural calculations as described in Comment 1b.

STRUCTURAL - cont.

23.(W) Drawing No. A-701, Stair #1, Sections and Details:

a) Section 4, Partial Elevation at Top Landing: Please detail connections between miscellaneous components and base building structural steel.
b) Section 5, Partial Section Through Top Landing: Please detail all connections between steel framing particularly connections to base structural steel.

24.(W) Drawing No. A-809, Miscellaneous Sections and Details, Sections 3, Glass partition Between Trading Room 8957 and Area 8910: Please specify steel framing. Detail connections between steel components and to underside of slab.

ATTACHMENT B - LIST OF COMMENTS
TAA #992114 - FIRST SUBMISSION
88TH, 89TH FLOOR, 2 WTC
SELF CERTIFICATION PROJECT
KEEFE BRUYETTE & WOODS

25.(W) Drawings No.C-101 and C-102, 88th Floor and 89th Floor, Coring Criteria Plan: Please label size and location of proposed core holes for plumbing, electrical feeds to raceway, floor-mounted outlets, etc. on plan.

26.(W)Drawing No. M-602, HVAC Details Sheet No. 3: Please provide hanging detail for AC units over 500 lbs., as are listed in HVAC schedule

27.(W) Drawing No. S-1, Interconnecting Stair #1:

a) Please provide structural calculations for all new steel and demonstrating ability of existing elements to carry new loads during construction and permanent load phases.
b) Please demonstrate how weak axis bracing of Column 601 will be maintained.
c) Pleas provide details of all beam connections or provide design shears for fabricator designed connections.
d) Stair #1. Part Plan at 89th Floor: Please show existing C8X11.5 between existing channel and 12B16.5 adjoining Column 501.
e) Installation Procedure item#2: Please show details of reinforcement of existing 12 B 16.5.
f) Section B & D: Please revise beam size, W10x15, to match part plan.
g) Section 2-2: Please provide structural calculations demonstrating ability of Floor 88 slab to carry connected stair load.
h) Structural Steel Note 9: Please revise contradictory notes "...and minimum weld shall be 3/8", and minimum weld shall be ¼"..."
i) Stair #1. Framing Plan: Please specify weld for 6" pipe where diagonal section meets horizontal section.
j) Section 4-4: Please verify minimum embedment for ¾" Hilti Kwik Bolts.
k) Section S-S: Please provide structural calculations demonstrating how load is transferred between round column and beam web.

STRUCTURAL - cont.

28 (W) Drawing No. S-2, Interconnecting Stair #2:

a) Please provide structural calculations for all new steel and demonstrating ability of existing elements to carry new loads during construction and permanent load phases.
b) Please demonstrate by calculation that the opposite beam capacity of existing 14 WF 43 is adequate to support the new stari and existing floor loads following slab removal.
c) Please provide details of all beam connections or provide design shears for fabricator designed connections.
d) Stair #2 - Framing Plan at 89th Floor:
    i) Please show existing C8x11.5 between existing channel and 12B16.5 adjoining Columns 508. Note channel interferes with proposed W12x19.
    ii) Please dimension location of slab edge at west and south edges.
e) Sections A, B, & D:
    i) Please detail connections at top and bottom of hanging rod.
    ii) Please specify size and grade of hanger rod.

f) Please detail all connection of stair stringers. Provide design for landing slabs.

g) Section B: Please provide detail at bottom of stair stinger specifying limits of slab removal at 88th Floor. Demonstrate by calculation that slab removal will not compromise the composite capacity of the beam below.

h) Structural Steel Note9: Please revise contradictory notes "...and minimum weld shall be 3/8", and minimum weld shall be ¼"..."

i) Coordinate connection of W12x19 to Columns 508 and 608 with existing steel connections at these locations.

BASE BUILDING

FIRE ALRM SYSTEM

1.(B) Add "Final tie-in of BBFAS strobes, speakers, smoke detectors and tri's by WTC BBFAS maintenance contractor (Siemens/Cerberus Division/Special Projects)

2.(B) Add "Pretesting of BBFAS strobes, speakers, smoke detectors and tri's by WTC BBFAS maintenance contractor (Siemens/Cerberus Division/Special Projects)

3.(B) Revise-legend-model number for BBFAS duct detector for use with FP-11 fireprint detector is AD-11P part number 500-095656.

4.(B) Revise - note 11 "Upon approval by the PA operations and maintenance group".

FIRE ALARM - cont.

5.(B) Revise - note 14-"Fire alarm cable shall be tested in accordance with PA wire test procedures and forms, submit to Mr. Ray Simonetti, PA O&M Maintenance supervisor for approval prior to device installation.

6.(B) Add - note -"Contractor shall submit PA pretest/tie in checklist prior to BBFAS tie in and pretesting. Submit same to Mr. Ray Simonetti, PA O&M Maint. Supv. 212-435-5005, Fax 212-435-5717.

7.(B) Add note "All new BBFAS Appliances and devices shall be acceptance tested by WTC BBFAS maintenance contractor w/elec. contractor present.

8.(B) Revise notes 2, 3, 5 - "Upon approval, by the PA WTC O&M Group"

9.(B) Revise note 0 3 "Upon acceptance NY the PA WTC O&M Group.

10.(B) Revise - computer room 8842 - Tenant smoke detector circuit label to other than "SD-Area" to avoid confusion with BBFAS circuits.

11.(B) Verify that strobe circuit "STR-C" at 590' in length will have total circuit resistance of less than 3OHMS. Specify wire gauge if required.

12.(B) Revise notes- 2, 3, 5 - "Upon Arrival by the PA WTC O&M Group"

13.(B) Revise note 3 - "Upon acceptance by the PA WTC O&M Group"

ATTACHMENT B - LIST OF COMMENTS
TAA #992114 - FIRST SUBMISSION
88TH, 89TH FLOOR, 2 WTC
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KEEFE BRUYETTE & WOODS

CAPITAL

FIRE ALARM SYSTEM

1.(C) Please forward As-Builds of the fire alarm drawings on disk as soon as they are available for our records and for the Fire Command Station computer graphics.

2.(C) Conference room 8820 on the 88th floor does not contain a speaker and that the building TSC and ATC panels are shown in different drawings.

End of Comments
032299

THE PORT AUTHORITY OF NY & NJ

ONE WORLD TRADE CENTER
NEW YORK, NY 10048

(212) 435-7000
(973) 961-6600

April 6, 1999

THE PORT AUTHORITY OF NY & NJ
QUALITY ASSURANCE DIV.
ENGINEERING DEPT.
APR - 8 1999
RECEIVED
NOTED
REFERRED TO WC99-2274

Guy Woelk
Keefe Bruyette and Woods
85th Floor, 2WTC
New York NY 10048

Re: Keefe Bruyette and Woods
Two World Trade Center – 88th and 89th Floors
TAA 992114-Self Certification - Released for Construction

Dear Mr. Woelk:

This letter responds your transmittal dated February 23, 1999, requested a review of the documents listed on Attachment "A" to this letter. Tenant Alteration Application 992114 is released for construction under the Professional Certification Program.

Notification of any comments generated as a result of this review will soon be issued.

Any changes to the scope of work must be submitted to the Port Authority for review prior to the commencement of associated work. Only contract documents reviewed by this office are to be released to the field for construction.

The certifying Licensed Professional referred to on the Tenant Alteration Application shall contact Mr. Robert Rafferty in writing at Port Authority. One World Trade Center, 88 East, New York, N.Y. 10048, 72 hours prior to the start of construction for a pre-construction meeting to discuss work scheduling and compliance with specific Port Authority requirements pertaining to construction work that will be performed on the premises. Mr. Rafferty telephone number is (212) 435-2292; Fax number is (212) 435-2408.

All correspondence or inquiries should be directed to Piyush Majmudar, Project Manager, at Port Authority, One World Trade Center, 88 South, New York, N.Y. 10048, (212) 435-2266, fax (212) 435-8168.

Sincerely,

Jennifer Richardson

Jennifer Richardson, Supervisor
Tenant Project Management
The World Trade Department

cc: John Cetra, Cetra/Ruddy Inc.
P. Majmudar, P.A.

Bcc: S. Bohl, A. Fadavi, T. Koebel, J. Napolitano, R. Rafferty, J. Ruiz, D. Marin, Central File, Chrono File.

ATTACHMENT A - LIST OF DOCUMENTS
TAA #992114 - FIRST SUBMISSION
88TH, 89TH FLOOR, 2 WTC
SELF CERTIFICATION PROJECT
KEEFE BRUYETTE & WOODS

DWG.	TITLE	DATE
ARCHITECTURAL		
A-001	TITLE SHEET/ LIST OF DRAWINGS	2/16/99
A-002	LEGENDS, ABBREVIATIONS, SYMBOLS	2/16/99
A-003	A.D.A. PROVISIONS & NOTES	2/16/99
A-004	GENERAL NOTES 1	2/16/99
A-005	GENERAL NOTES 2	2/16/99
A-006	PARTITION TYPES	2/16/99
A-007	DOOR/FRAME TYPES, SADDLE TYPES	2/16/99
A-008	88TH FLOOR DOOR SCHEDULE 1	2/16/99
A-009	89TH FLOOR DOOR SCHEDULE 2	2/16/99
A-010	HARDWARE SCHEDULE	2/16/99
A-011	FINISH SCHEDULES	2/16/99
A-012	FINISH SPECIFICATIONS	2/16/99
A-013	MISC. CEILING DETAILS	2/16/99
A-014	EQUIPMENT SCHEDULES	2/16/99
A-101	88TH FLOOR PLAN	2/16/99
A-102	89TH FLOOR PLAN	2/16/99
A-201	88TH FLOOR REFLECTED CEILING PLAN	2/16/99
A-202	89TH FLOOR REFLECTED CEILING PLAN	2/16/99
A-301	88TH FLOOR POWER & SIGNAL PLAN	2/16/99
A-302	89TH FLOOR POWER & SIGNAL PLAN	2/16/99
A-401	88TH FLOOR WALL FINISH PLAN	2/16/99
A-402	89TH FLOOR WALL FINISH PLAN	2/16/99
A-403	88TH FLOOR FLOOR FINISH PLAN	2/16/99
A-404	89TH FLOOR FLOOR FINISH PLAN	2/16/99
A-500	88TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-501	88TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-502	88TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-503	88TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-504	88TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-505	88TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-506	88TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-507	89TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-508	89TH FLOOR INTERIOR ELEVATIONS	2./16/99
A-509	89TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-510	89TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-511	89TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-512	89TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-513	89TH FLOOR INTERIOR ELEVATIONS	2/16/99
A-514	88TH & 89TH FLOOR PART PLANS-RECEPTION	2/16/99
A-600	88TH & 89TH FLOOR PART PLANS-TOILETS	2/16/99
A-601	88TH & 89TH FLOOR PART PLANS-TOILETS	2/16/99
A-602	88TH & 89TH FLOOR PART PLANS-TOILETS	2/16/99
A-603	88TH FLOOR PART PLANS-TOILETS	2/16/99
A-604	89TH FLOOR PART PLANS-TOILETS	2/16/99
A-605	89TH FLOOR PART PLANS-TOILETS	2/16/99
A-606	88TH FLOOR PART PLANS-PANTRIES	2/16/99
A-607	88TH FLOOR PART PLANS-PANTRIES	2/16/99
A-608	89TH FLOOR PART PLANS-PANTRIES	2/16/99
A-6-09	89TH FLOOR PART PLANS-PANTRIES	2/16/99
A-610	89TH FLOOR PART PLAN-LUNCH ROOM	2/16/99
A-611	88TH FLOOR PART PLANS-FILE/COPY/STOR.RMS	2/16/99
A-612	88TH FLOOR PART PLANS- COPY/EQUIP RMS.	2/16/99
A-613	89TH FLOOR PART PLANS-COPY/MAIL/STOR.RMS	2/16/99
A-614	89TH FLOOR PART PLANS-CPY MAIL RM	2/16/99
A-615	88TH & 89TH FLOOR FINISH PLANS-TOILETS #8855/8867	2/16/99
M-601	DETAILS SHEET NO. 2	2/16/99
M-602	DETAILS SHEET NO. 2	2/16/99

ATTACHMENT A - LIST OF DOCUMENTS
TAA #992114 - FIRST SUBMISSION
88TH, 89TH FLOOR, 2 WTC
SELF CERTIFICATION PROJECT
KEEFE BRUYETTE & WOODS

DWG.	TITLE	DATE
PLUMBING		
P-100	LEGEND, ABBREVIATIONS,GENERAL NOTES	2/16/99
	& DRAWINGS LIST	2/16/99
P-300	88TH FLOOR PLAN	2/16/99
P-301	89TH FLOOR PLAN	2/16/99
P-400	RISER DRAWING & DETAILS	2/16/99
ELECTRICAL		
E-100	ELECTRICAL SYMBOLS & ABBREVIATIONS	2/16/99
E-100F	FIRE ALARM SYMBOLS, SPECIFICTIONS	2/16/99
	& GENERAL NOTES	2/16/99
E-101	ELECTRICAL PANELBOARD SCHEDULES	2/16/99
E-102	ELECTRICAL PANELBOARD SCHEDULES	2/16/99
E-103	ELECTRICAL PANELBOARD SCHEDULES	2/16/99
E-388L	88TH FLOOR LIGHTING PLAN	2/16/99
E-388P	88TH FLOOR POWER & TELEPHONE PLAN	2/16/99
E-389L	89TH FLOOR LIGHTING PLAN	2/16/99
E-389P	89TH FLOOR POWER & TELEPHONE PLAN	2/16/99
E-388F1	88TH FLOOR FIRE ALARM SYSTEM RISER DIAGRAM	2/16/99
E-388F2	88TH FLOOR FIRE ALARM SYSTEM SPEAKER	2/16/99
	INSTALLATIN PLAN	2/16/99
E-388F3	88TH FLOOR FIRE ALARM SYSTEM SMOKE	2/1699
	DETECTOR INSTALLATION PLAN	2/16/99
E-388F4	88TH FLOOR FIRE ALARM SYSTEM STROBE	2/16/99
	INSTALLATION PLAN	2/16/99
E-389F1	89TH FLOR FIRE ALARM SYSTEM RISER DIAGRAM	2/16/99
E-389F2	89TH FLOOR FIRE ALARM SYSTEM SPEAKER	2/16/99
	INSTALLATION PLAN	2/16/99
E-389F3	89TH FLOOR FIRE ALARM SYSTEM SMOKE	2/16/99
	DETECTOR INSTALLATION PLAN	2/16/99
E-389F4	89TH FLOR FIRE ALARM SYSTEM STROBE	2/16/99
	INSTALLATION PLAN	2/16/99
ELECTRICAL		
E-500	ELECTRICAL PARTIAL RISER DIAGRAM	2/16/99
E-600	ELECTRICAL DETAILS	2/16/99
E-601F	FIRE ALARM SYSTEM MOUNTING DETAILS	2/16/99
E-602F	FIRE ALARM SYSTEM WIRING DIAGRAMS &	2/16/99
	INSTALLATION DETAILS	2/16/99
E-603F	FIRE ALARM SYSTEM SMOKE DETECTOR	2/16/99
	ARRANGEMENT, PART PLANS & DETAILS	2/16/99
STRUCTURAL		
S-1	INTERCONNECTING STAIR #1	2/16/99
S-2	INTERCONNECTING STAIR #2	2/16/99
A-616	88TH & 89TH FLOOR FINISH PLANS-TOILETS #8853/8969	2/16/99
A-617	88TH & 89TH FLOOR FINISH PLANS-TOILETS #8854/8966	2/16/99
A-618	88TH FLOOR PART PLANS-MISC. CEILING LAYOUTS	2/16/99
A-619	89TH FLOOR PART PLANS-MISC. CEILING LAYOUTS	2/16/99
A-620	89TH FLOOR PART PLANS-MISC. CEILING LAYOUTS	2/16/99
A-700	STAIR #1 PLAN	2/16/99
A-701	STAIR #1 SECTIONS/DETAILS	2/16/99
A-702	STAIR #\2 PLAN	2/16/99
A-703	STAIR #2 SECTIONS/DETAILS	2/16/99

ATTACHMENT A - LIST OF DOCUMENTS
TAA #992114 - FIRST SUBMISSION
88TH, 89TH FLOOR, 2 WTC
SELF CERTIFICATION PROJECT
KEEFE BRUYETTE & WOODS

DWG.	TITLE	DATE
A-711	METAL & GLASS PARTITION DETAILS	2/16/99
A-800	MISC. DETAILS	2/16/99
A-801	MISC. DETAILS	2/16/99
A-802	NOT USED	2/16/99
A-803	FABRIC PANEL DETAILS	2/16/99
A-804	89TH FLOOR CORRIDOR CEILING DETAILS	2/16/99
A-805	89TH FLOOR TRADING ROOM CEILING DETAILS	2/16/99
A-806	88TH & 89TH FLOORS CEILING DETAILS	2/16/99
A-807	88TH & 89TH FLOORS CEILING DETAILS	2/16/99
A-808	89TH FLOOR EXEC. BATH DETAILS	2/16/99
A-809	MISC. SECTIONS & DETAILS	2/16/99
A-900	88TH & 89TH FLOORS RECEPTION DESKS	2/16/99
A-901	89TH FLOOR EXEC. SECRETARIAL DESK	2/16/99
A-902	89TH FLOOR J. MCDERMOTT OFFICE	2/16/99
A-903	89TH FLOOR EXEC. AREA-PART PLAN DETAILS	2/16/99
A-904	88TH & 89TH FLOOR PANTRY DETAILS	2/16/99
A-905	89TH FLOOR RECEPTION-PART PLAN DETAILS	2/16/99
A-906		
A-907	89TH FLOOR EXEC. SECRETARIAL MILLWORK DETAILS	2/16/99
A-908	88TH FLOOR ASSET MGMT. RECEPTION MILLWORK	2/16/99
A-909	89TH FLOOR TRADING AREA MILLWORK	2/16/99
A-910	88TH & 89TH FLOOR MISC. MILLWORK	2/16/99
C-101	88TH FLOOR CORING CRITERIA PLAN	2/16/99
C-102	89TH FLOOR CORING CRITERIA PLAN	2/16/99
EG-101	88TH FLOOR EGRESS PLAN	2/16/99
EG-102	89TH FLOOR EGRESS PLAN	2/16/99
F-101	88TH FLOOR FURNITURE PLAN	2/16/99
F-102	89TH FLOOR FURNITURE PLAN	2/16/99
FIRE PROTECTION		
FP-100	LEGEND, ABBREVIATIONS, GENERAL NOTES	2/16/99
	DRAWING LIST & SCHEDULES	2/16/99
FP-300	88TH FLOOR PLAN	2/16/99
FP-301	89TH FLOOR PLAN	2/16/99
HVAC		
M-100	HVAC SYMBOLS & ABBREVIATIONS	2/16/99
M-101	HVAC SCHEDULES	2/16/99
M-388	88TH FLOOR PLAN	2/16/99
M-389	89TH FLOOR PLAN	2/16/99
M-400	SECTIONS SHEET NO. 1	2/16/99
M-600	DETAILS SHEET NO.1	2/16/99

END OF DOCUMENT

032299

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY

M E M O R A N D U M

To: Ms. Teresa Koebel, Manager, World Trade Project Management
From: C. John Lin, P.E.
Date: March 22, 1999
Subject: **WTC - ALTERATION APPLICATION WC-992114 - KEEFE BRUYETTE & WOODS - 2 WTC, 88TH AND 89TH FLOORS - TENANT BUILDOUT OFFICE SPACE**

Reference: Review Request dated 2/18/99

Copy To:			
	A. Fadavi	J. Napolitano	Job Folder
	R. Rafferty	J. Richardson	Chrono File

An audit of the material submitted with the referenced request has been made.

There are **twenty-seven (27) comments** on the attached rider.

Drawings: Computations:

Specifications: Resolutions:

REMARKS: This memorandum was transmitted to the Facility via OA on March 22, 1999.

C. John Lin, P.E.
Manager
Quality Assurance Division

I.D.: WC99-2114-001
MLP/mt
att:

Reviewers:
M. Palmieri, Architectural and Coordination; T. Santa Maria, Electrical; Z.A. Zwierz, Mechanical; H. MacDonald, Plumbing; H. Klimenko, Structural; D. Luey, Fire Protection.

RIDER

ALTERATION APPLICATION WC-992114

GENERAL

1. Drawing A-003. All items subject to Controlled Inspections shall be listed on the plans in compliance with the NYC Building Code Section 27-132 and 27-136.

ARCHITECTURAL

2. Drawing EG-101:

   a) Provide an exit sign at the following locations as per Code Section 27-385:

      i) On the South side of Door 88-03.
      ii) On the West side of Hallway 8878 North of Door 88-93.
      iii) At the West entrance to Rooms 8862 and 8863.

   b) Provide a directional exit sign at the following locations as per. Code Section 27-386:

      i) In Hallway 8880, 4 feet South of Door 88-16.
      ii) In Hallway 8879, 4 feet Northeast of Door 88-99.

   c) Reconcile Drawing EG-101 with Drawing E388L showing the correct locations of exit and directional exit signs.

3. Drawing EG-102:

   a) Provide an exit sign at the following locations as per Code Section 27-385:

      i) On Conference side of Door 89-48.
      ii) On Office side of Doors 89-52 and 89-64.

   b) Provide a directional exit sign 20 feet north of Door 89-24, as per Code Section 27-386.

   c) Reconcile Drawing EG-102 with Drawing 389L showing the correct locations of exit and directional exit signs.

4. Drawing A-2. Please add a note that removal and demolition work shall be in compliance with Article 6, Subchapter 19 of the NYC Building Code, "Demolition Operation".

5. Drawing A-503, Details 15 and Drawing A-506, Detail 4:

   a) On the walls with glass doors and glass panels, indicate glass markings in compliance with the BS&A Calendar #501-68-SR.

b) Glass in walls shall be safety glass as per Code Section 27-651.

6. Drawing A-701. The handrail extensions shall be in compliance with ADA Section 4.9.4 and Figure 17.

ARCHITECTURAL/ELECTRICAL

7. Drawing A-010. The hardware sets show magnetic locks utilizing "request to exit" buttons to unlock the door from the egress side, NYC Building Code Section 27-371(j)(1)a, requires that doors in the path of egress open freely from the egress side. An MEA approved releasing means, such as a panic bar with an integral switch approved for use with that model magnetic lock, may be used instead. Please revise the design to comply with the Code.

ELECTRICAL

8. Drawing E-103, Panel Schedules. Appliance branch circuits that are permitted to have a 20A branch breaker trip rating at 120V, cannot have more than two (2) outlets. Several such circuits show more than this number. See NYC Electrical Code Section 27-3169. General purpose 120V branch circuits are limited to no more than a 15A branch breaker trip rating, as per Code Section 27-3167.

MECHANICAL

9. Approved duct mounted smoke detectors shall be provided for all new air conditioning units with a capacity of 2,000 CFM or more, as required by NYC Building Code RS 13-1, Section 4-3.

10. Drawing M-388:

a) Mechanical exhaust systems shall be provided for the two new private toilets, as per NYC Building Code, Section 27-759(c). Also, the volumes of exhaust air from the existing public toilets have not been defined on the plan to verify their compliance with the code.

b) An independent purge system shall be provided for the UPS room to be protected by the clean agent fire extinguishing system. See NYC Building Code, Section 27-754(e). Also, please note that the return air outlet in the UPS room tapped to the base building system's return air duct will not be active for extended periods of time. Provide sufficient diffusion of the gases generated by the stationary electrical storage battery in this room to prevent the accumulation of an explosive mixture, as required by NYC Electrical Code, Section 27-3158(a).

c) The function and the diameter of the piping serving the new air conditioning units shall be indicated on the drawing. Show on the plan condenser water piping for the UPS room air conditioning unit CRAC-8-3. See NYC Building Code Section 27-157.

d) The condensate drain pipe in the Janitor's Closet, shall comply with NYC Building Code RS-16, Section P111, for indirect waste piping. Note that any receiving fixture must have a water seal of at least 2 inches, protected from evaporation, as per RS-16, Sections P105.1(e) and (f).

11. Drawing M-389:

a) The extent of changes and rebalancing of toilet exhaust outlets for the existing public toilet is not clearly shown on this plan; e.g., Men's Toilet 8989 requires at least 200 CFM exhaust, but it is designed for 120 CFM only. See NYC Building Code Section 27-759(c)(2). It shall be verified by computation that the required volumes of exhaust will be accomplished from the new private Bathroom 8914 through the long exhaust shown connected to the base building toilet exhaust system without a booster fan.

b) The Condensate drain piping from the new air conditioning units AC-89-2 and AC-89-3 shall be shown. Show on the plan the manner of termination of the condensate in the Janitor's Closet. See NYC Building Code RS-16, Section P111, for indirect waste piping. Note that any receiving fixture must have a water seal of at least 2 inches, protected from evaporation, per Code RS-16, Section P105.1(e) and (f).

c) Several supply air duct branches from the base building, as well as supplemental air handling units, have been shown as not connected to any supply air outlet. See NYC Building Code Section 27-157. Also, the 10 x 6 return/exhaust duct from the Pantry 8920 does not have a defined termination point.

PLUMBING

12. Drawing P-301. Provide pressure reducing valves for water supplies to the pantry sink in Room 8940. See Code RS-16, Section P107.5(d).

STRUCTURAL

13. Drawing A-013, Miscellaneous Ceiling Details:

a) Show the elevation of the Typical Floor Double Truss, as per Tenant Construction Review Manual (TCRM), Attachment S2, and locate sections and details shown on this sheet.

b) Ceiling Details. Indicate the following items on the details in compliance with NYC Building Code and TCRM, Attachment S2, Drawing S2, Notes:

i) Concrete Anchors. Indicate manufacturer, type, size and embedment length of approved anchors.

ii) Ceiling Hangers. Specify the hangers to be galvanized.

iii) Carrying Channel. Indicate that the minimum weight of the hangars shall 590 lbs. per 1000 lin. ft.

iv) Caddy Gat Clamps. Specify catalog number of the NYC approved channel clamp.

c) The ceiling suspension system shown is for the Double Trussed Area of the WTC only. Please provide ceiling suspension system details for the core area, as per NYC Building Code, RS 5-16.

14. Drawings A-101 and A-102, 88th and 89th Floor Plans:

a) Indicate location and loads for all machinery and equipment weighting in excess of 1000 pounds. See Code 27-(b)3 and TCRM, Section 6.V.B.4.

b) Verify with calculations that:

i) The existing construction and its connections are not overstressed in the following areas: computer rooms, supply and storage rooms, UPS rooms, equipment rooms, file rooms, record storage and file storage rooms. The loads for file cabinets and shelves shall be as per WTC criteria.

ii) The existing construction and its connections are not overstressed by the added weight of the concrete raised floor and concrete pads, as shown on Drawing A-809.

15. Drawings S-1 and S-2:

a) Please verify that the existing beams, proposed to be removed for the new stair opening, are not part of the building lateral load resisting system.

b) Investigate the adequacy of the horizontal floor diaphragm to resist lateral forces when the proposed openings for the new stairs are cut.

16. Drawing S-2, Details A, B and D. Indicate size of the hanger rod supporting intermediate stair platform.

FIRE PROTECTION

17. Technical Specification Section 15301:

a) Subsection 3.9C: Replace second sentence with "Pans shall be 18 gauge copper, reinforced to prevent sagging, with the edges of the pans turned up 6 inches on all sides. Braze the corner to make the pans watertight. Support the pan with hangers."

b) Subsection 3.16 B: Revise to read "...with the Port Authority of New York & New Jersey."

18. Technical Specification Section 15303:

a) Grooved piping and mechanical grooved fittings are not permitted. Victaulic fittings are not permitted to be used for size 3 in. and under, unless otherwise approved. Revise Subsection 2.1.B accordingly.

b) Subsection 2.2G: Reliable Model G4 is used in all finished areas. Reliable Model G (upright or pendent) is used in areas without hung ceilings. Revise accordingly.

19. Technical Specification Section 15308:

a) Subsection 2.2.C.1: Revise the first sentence to read "...or a maximum of 1/2" clearance..."

b) Subsection 2.2.C.3: Revise to read "The space between the pipe and its sleeve shall not exceed one-half inch."

c) Subsection 2.6 A: Revise the first sentence to read "All piping shall be identified by self adhesive pipe..."

d) Subsection 3.1 A-1: Revise to read "...for two (2) hours, or at 50 psi in excess of the maximum pressure, when the maximum pressure to be maintained in the system is in excess of 150 psi."

20. Technical Specification Section 15311:

a) Subsection 2.1H: Add maximum hanger spacing to the schedule.

b) Subsection 3.1: Add the following subsections:

H. Clevis hangers are required on sprinkler piping larger than one inch; general purpose hangers may be used on one inch sprinkler piping only.

I. Hangers shall be suspended from the beam clamps, brackets, fish plates, inserts or other approved means. Drilling/anchoring systems will be permitted into the concrete only with the approval by the Architect and the PA/WTD. The use of powder activated tool fastening system is not permitted.

J. Provide protection shields for all insulated piping at points of support. Shields shall be 12 inches long, galvanized steel plate with a radius suitable for the required applications including insulation.

K. Tabs in the metal deck construction shall not be used to support pipe or equipment.

L. The Contractor shall furnish and install all supplemental structural steel required for spanning between, or connecting to, building structural members, for the hanging or supporting of the piping. Welding to building structural members will not be permitted without the approval of the Architect and the PA/WTD. Drilling and/or bolting into existing structural steel members is not permitted.

M. Hangers may be directly connected to steel beams of building construction by means of approved beam clamps. Smaller pipes may be suspended from cross-sections of pipe or steel angles, which, in turn, shall be securely fastened to building beams or hung from building concrete construction by means of rods and inserts. Supports in each case shall be adequate so as not to unduly stress the building construction.

21. Technical Specification Section 15316:

a) Subsection 2.1 B.2: Revise to read "Concealed: Cover plate must be chrome plated, not factory painted white; Reliable "G4 concealer."

b) Subsection 3.2F: Add after the second sentence "Sprinkler heads located in corridors shall be located in the center of the corridor.

22. Technical Specification 15319: New Halon Fire extinguishing systems shall not be installed in the World Trade Center. Common approved clean agent fire extinguishing systems use Halon replacement gases like Inergen or FM-200; submit specification accordingly. See Rules of the City of New York 15-08 for requirements.

23. Technical Specification 15320:

a) Subsection 1.4: Delete E and F.

b) Subsection 2.2.A: Replace "1-1/2" Figure 2947 brass nozzle" with "1-1/2" Figure 2960 adjustable fog nozzle." Length of hose is 125 feet.

c) Delete Subsections 2.3, 2.4 and 2.5.

d) Subsection 2.6: Revise A to read "2-1/2" Hose Stations: Provide Potter-Roemer Figure 2766, 1-1/2" brass adjustable pressure reducing valve where normal hydrostatic pressure at 1-1/2" hose station exceeds 85 psig." Delete B.

e) Subsection 2.7: Revise A to read "Fire Hose Cabinets: Figure 1104 series recessed with 20 gauge door of style "DE" due panel wire glass." Delete B.

f) Subsection 3.2A: Revise to read "...for two (2) hours, or at 50 psi in excess of the maximum pressure, when the maximum pressure to be maintained in the system is in excess of 150 psi."

24. Technical Specification 15238:

a) Subsection 2.2C. Revise to read "Insulate all sprinkler piping and fittings within 15 feet of the exterior wall. Pipe insulation shall be one inch thick, Manville Micro LOCK Fiberglass with all service jacket, or an approved equal."

b) Subsection 2.2D: Revise to read "Fittings, valves, flanges and accessories shall be insulated with compressed Fiberglas and wired in place with 18-gauge galvanized steel wire. The entire surface will be coated with a uniform coat of a fire retardant vapor barrier, and have embedded into the wet coat a layer of Fiberglas tape extending 2 inches into adjacent pipe covering. Pre-molded PVC insulation covers are not permitted.

25. Drawing FP-100, Building Department Note 11: Revise to read "...as per Table 3-11.6.3(a)."

26. Drawing FP-300:

a) Hydraulic sprinkler calculation shall be performed with drawing showing all node points, for area of application shown.

b) Plans shall be provided for the UPS room's clean agent gas suppression system showing detection equipment, discharge, calculations, equipment and piping alarm systems and all other safety features. Provide system's sequence of operation, audible and visible alarms within and outside the room, suitable fixed emergency forced ventilation, etc.

c) Note 2 refers to "Detail FP-500"; show the detail on the drawing.

27. Drawing FP-301:

a) Hydraulic sprinkler calculations shall be performed with drawings showing all node points.

b) Drawing shows sidewall sprinkler heads to protect trading area. Revise to pendant type heads as shown on part section of Drawing FP-100.

Reviewer: Mario L. Palmieri
Coordinator: Mario L. Palmieri
Subject: KEEFE BRUYETTE & WOODS - 2 WTC - 88th & 89TH Floors
Tenant Build-out Office Space

RIDER

ALTERATION APPLICATION WC99-2114-001

GENERAL

1) Drawing A-003

All items subject to controlled Inspections shall be listed on the plans in compliance with the New York City Building Code Sections 27-132 and 27-136.

ARCHITECTURAL

2) Drawing EG-101

a) Show an exit sign at the following locations as per Code Section 27-385:
   1) On the South side of Door 88-03.
   2) On the West side of Hallway 8878 North of Door 88-93.
   3) At the west entrance to Room 8862 at Room 8863.

b) Show a directional exit sign at the following locations as per Code Section 27-386:
   1) In Hallway 8880 4 feet South of Door 88-16.
   2) In Hallway 8879 4 feet Northeast of Door 88-99.

c) RECONCILE DRAWING EG101 WITH DRAWING E388L

3) Drawing EG-102

a) Show an exit sign at the following locations as per Code Section 27-385:
   1) On Conference side of Door 89-48
   2) On Office side of Doors 89-52 and 89-64.

b) Show a directional exit sign ~~at the following locations~~ as per Code Section 27-386:
   1) 20 feet north of Door 89-24.

c) RECONCILE DRAWING EG102 WITH DRAWING E389L.

4) Drawing A.2

a) Please add a note that removal and demolition work shall be in compliance with Article 6, Subchapter 19 of the NYC Building Code, "Demolition Operation".

5) Drawing A-102

a) Show that the ramps, doors 89-1 and 89-2 are in compliance with ADA Section 4.8.

5a) Drawing A-503 Detail 15 and Drawing A-506 Detail 4

a) On the walls with glass doors and glass panels indicate glass markings in compliance with the Code BS&A Calendar #501-68-SR.

(b) GLASS IN WALLS SHALL BE SAFETY GLASS AS PER CODE SECTION 27-651

6) Drawing A-701

a) Show that the handrail extensions are in compliance with ADA Section 4.9.4 and Figure 17.

RIDER

ALTERATION APPLICATION WC-2114

ARCHITECTURAL/ELECTRICAL

7

1. Drawing A-010. The hardware sets show magnetic locks utilizing "request to exit" buttons to unlock the door from the egress side. ~~This is not~~ in ~~accordance with~~ NYC Building Code Section 27-371(j)(1)a, ~~which~~ requires doors in a path of egress to open freely from the egress side. An MEA-approved releasing means, such as a panic bar with integral switch approved for use with that model magnetic lock, may be used instead.

ELECTRICAL

8

2. Drawing E-103, Panel Schedules. Appliance branch circuits that are permitted to have a 20A branch breaker trip rating at 120V, cannot have more than two(2) outlets. Several such circuits show more than this number. See NYC Electrical Code Section 27-3169. General purpose 120V. branch circuits are limited to no more than a 15A branch breaker trip rating as per Section 27-3167.

Reviewer: Z. Andrew Zwierz
Coordinator: M. Palmieri
Date: 03/17/99

Keefe Bruyette & Woods –2 WTC – 88 & 89
Floors– Tenant Buildout Office Space
W02 992 114

WC99-2114-001

MECHANICAL

9 ~~Fire~~ Approved, duct mounted smoke detectors ~~have not been~~ SHALL BE provided for all new air conditioning units with a capacity of 2,000 CFM or more, as required by NYC Building Code RS 13-1, Section 4-3.

10 Drawing M-388:

a) Mechanical exhaust systems ~~have not been~~ SHALL BE provided for the two new private toilets, in violation of NYC Building Code, Section 27-759.(c). Also, the volumes of exhaust air from the existing public toilets have not been defined on the plan to verify their compliance with the code.

b) An independent purge system ~~has not been~~ SHALL BE provided from the UPS room to be protected by the clean agent fire extinguishing system. See NYC Building Code, Section 27-754. (e). Also, please note that the return air outlet in the UPS room tapped to the base building system's return air duct will not be active for extended periods of time~~, particularly during long holiday weekends~~, ~~a~~ provide sufficient diffusion of the gases generated by the stationary electrical storage battery in this room to prevent the accumulation of an explosive mixture ~~in this room~~, as required by NYC Electrical Code, Section 27-3158.a.

c) ~~Neither the functions~~ and ~~nor~~ diameters ~~are defined for the piping shown on the plan as serving the new air conditioning units~~ shall be indicated on the drawing. See NYC Building Code, Section 27-157. ~~Also~~ ~~show~~ ON THE PLAN condenser water piping for the UPS room air conditioning unit CRAC-88-3.

d) ~~The manner of termination of the~~ The condensate drain pipe in the Janitor's Closet, ~~is not defined on the plan as conforming with all applicable provisions of~~ SHALL COMPLY WITH NYC Building Code RS-16, Section P111, for indirect waste piping. Note that any receiving fixture must have a water seal of at least 2 inches, protected from evaporation, per RS 16,Sections P105.1.(e) and (f).

12. Drawing M-389:

a) The extent of changes and rebalancing of toilet exhaust outlets for the existing public toilet is not clearly shown on this plan; e.g., Men's Toilet 8989 requires at least 200 CFM exhaust but it is designed for 120 CFM only, ~~in violation of~~ SEE NYC Building Code, 27-759.(c).(2). ~~Also, there are~~ no computations SHALL BE submitted to verify that the required volumes of exhaust will be accomplished from the new private bathroom 8914 through ~~a very~~ the long exhaust duct branch SHOWN connected to the base building toilet exhaust ~~duct work~~ system without a booster fan.

b) The Condensate drain piping from the new air conditioning units AC-89-2 and AC-89-3 ~~is not shown. Also, the manner of termination of the condensate drain piping~~ SHALL BE SHOWN on the plan in the Janitor's Closet, ~~is not defined on the plan as conforming with all applicable provisions of~~ SEE NYC Building Code RS-16, Section P111, for indirect waste piping. Note that any receiving fixture must have a water seal of at least 2 inches, protected from evaporation, per RS 16,Sections P105.1.(e) and (f). Seat 27-157.

c) Several supply air duct branches from base building as well as supplemental air handling units have been shown as not connected to any supply air outlet. See NYC Building Code, Section 27-157. Also, the 10 x 6 return/exhaust duct from the Pantry 8920 does not have a defined termination point.

c, Show

TENANT ALTERATION PLUMBING REVIEW

The Port Authority of New York & New Jersey . Engineering Department .

APPLICATION & SUBMISSION # WC99-2114-001

DUE DATE: **3 / 12 / 99**

COORDINATOR : M. PALMIERI *EXT.* 8614

FACILITY: WTC

TENANT: KEEFE BRUYETTE & WOODS

CHARGE CODE: W02 992 114

BUILDING CODE: NYCBC , REFERENCE STANDARD RS - 16

DISCIPLINE : PLUMBING

REVIEWED BY: V. FIORE *EXT.:* 7466

DATE: 2 / 12 / 99

~~COMMENTS~~:

DWG. P-301

12 1. ~~INDICATE~~ ~~PRV'S~~ FOR WATER SUPPLIES TO PANTRY SINK IN ROOM # 8940 PROVIDE PRESSURE REDUCING VALVES SECTION P107.5 (d)

__.Please provide Controlled Inspection Notes and list all the items subject to Controlled Inspections. See Code Section 27-1132 and TCRM, Section 14, Part III-B

13 __ Drawing A-013, Miscellaneous Ceiling Details.

a) Show elevation of Typical Floor Double Truss, as per TCRM Attachment S2, and locate sections and details shown on this sheet.

b) Ceiling Details. Indicate the following items on the details in compliance with NYC Building Code and TCRM, Attachment S2, Drawing S2, Notes.

i) Concrete Anchors. Indicate manufacturer, type, size and embedment length of approved anchors.

ii) Ceiling hangers. Specify the hangers to be galvanized.

iii) Carrying Channel. Indicate that the minimum weight of the hangers to be 590 lbs per 1000 lin.ft.

iv) Caddy Gat Clamps. Specify catalog number of NYC approved channel clamp.

c) The ceiling suspension system shown is for the Double Trussed AREA of the WTC only. Please provide ceiling suspension system for the core area as per NYC Building Code, RS 5-16. & details

14 __ Drawing A-101 and A-102, 88TH AND 89TH Floor Plans.

a) Indicate location and loads for all machinery and equipment weighing in excess of 1000 lbs. See Code 27-(b)3 and TCRM, Section 6.V.B.4.

b) Verify with calculations that,

i) the existing construction and its connections are not overstressed by computer rooms, supply and storage rooms, ups rooms, equipment rooms, file rooms ,record storage and file storage rooms. The loads for file cabinets and shelves shall be as per WTC criteria.

ii) the existing construction and its connections are not overstressed by the added weight of concrete raised floor and concrete pads, as shown on drawing A-809.

15 __Drawing S-1 and S-2

a) Please verify that the existing beams, proposed to be removed for the new stair opening, are not part of the building lateral load resisting system.

b) Investigate adequacy of the horizontal floor diaphragm to resist lateral forces when the proposed openings for the new stairs are cut.

16 __Drawing S-2. Details A, B and D. Indicate size of the hanging rod supporting intermediate stair platform.

The Port Authority of NY & NJ

To: Mario Palmieri
From: Danny Luey
Date: March 5, 1999

Subject: Tenant Alterations Review Request
Application No. WC99-2114 #1
Fire Protection [redacted]

17

1. Technical Specification Section 15301

   a. Subsection 3.9 C.: Replace second sentence with "Pans shall be 18 gauge copper, reinforced to prevent sagging, with thr edges of the pans turned up 6 in. on all sides. Braze the corners to make the pans watertight. Support the pan with hangers."

   b. Subsection 3.16 B.: Revise to read "… with the Port Authority of NY & NJ."

18

2. Technical Specification Section 15303

   a. Grooved piping and mechanical grooved fittings are not permitted. Victaulic fittings are not permitted to be used for size 3 in. and under unless otherwise approved. Revise subsection 2.1 B. accordingly.

   b. Subsection 2.2 G.: Reliable Model G4 is used in all finished areas. Reliable Model G (upright or pendent) is used in areas without hung ceilings. Revise accordingly.

19

3. Technical Specification Section 15308

   a. Subsection 2.2 C.1.: Revise first sentence to read "… or a maximum of ½" clearance …"

   b. Subsection 2.2 C.3: Revise to read "The space between the pipe and its sleeve shall not exceed one-half inch."

   c. Subsection 2.6 A.: Revise first sentence to read "All piping shall be identified by self adhesive pipe …"

   d. Subsection 3.1 A.1.: Revise to read "… for two (2) hours, or at 50 psi in excess of the maximum pressure, when the

maximum pressure to be maintained in the system is in excess of 150 psi."

20 4. Technical Specification Section 15311

a. Subsection 2.1 H.: Add maximum hanger spacing to schedule.

b. Subsection 3.1: Add the following subsections.

H. Clevis hangers are required on sprinkler piping larger than one inch; general purpose hangers may be used on one inch sprinkler piping only.

I. Hangers shall be suspended from beam clamps, brackets, fish plates, inserts or other approved means. Drilling/anchoring systems will be permitted into concrete only with the approval by the Architect and the PA/WTD. The use of power activated tool fastening system is not permitted.

J. Provide protection shields for all insulated piping at [redacted] points of support. Shields shall be 12 in. long, galvanized steel plate with a radius suitable for the required applications, including insulation.

K. Tabs in metal deck construction shall not be used to support pipe or equipment.

L. The Contractor shall furnish and install all supplemental structural steel required or spanning between, or connecting to, building structural members, for the hanging or supporting of piping. Welding to building structural members will not be permitted without the approval of the Architect and the PA/WTD. Drilling and/or bolting into existing structural steel members is not permitted.

M. Hangers may be directly connected to steel beams of building construction by means of approved beam clamps. Smaller pipes may be suspended from cross-sections of pipe or steel angles, which, in turn, shall be securely fastened to building beams or hung from building concrete construction by means of rods and inserts. Supports in each case shall be adequate so as not to unduly stress the building construction.

21 5. Technical Specification Section 15316

a. Subsection 2.1 B.2.: Revise to read "Concealed: Cover plate must be chrome plated, not factory painted white; Reliable 'G4' concealer."

b. Subsection 3.2 F.: Add after second sentence "Sprinkler heads located in corridors shall be located in the center of the corridor.

22 6. Technical Specification 15319: New Halon fire extinguishing systems shall not be installed in the World Trade Center. Common approved clean agent fire extinguishing systems use Halon replacement gases like Inergen or FM-200; submit specification accordingly. See Rules of the City of New York 15-08 for requirements.

23 7. Technical Specification 15320

a. Subsection 1.4: Delete E. and F.

b. Subsection 2.2 A.: Replace "1-1/2" Fig. 2947 brass nozzle" with "1-1/2" Fig. 2960 adjustable fog nozzle". Length of hose is 125 feet.

c. Delete Subsections 2.3, 2.4 and 2.5.

d. Subsection 2.6: Revise A. to read "2-1/2" Hose Stations: Provide Potter-Roemer Fig. 2766, 2-1/2" brass adjustable pressure reducing valve where normal hydrostatic pressure at 1-1/2" hose station exceeds 85 psig." Delete B.

e. Subsection 2.7: Revise A. to read "Fire Hose Cabinets: Fig. 1104 series recessed with 20 gauge door of style "DE" duo panel wire glass." Delete B.

f. Subsection 3.2 A.: Revise to read "... for two (2) hours, or at 50 psi in excess of the maximum pressure, when the maximum pressure to be maintained in the system is in excess of 150 psi."

24 7. Technical Specification 15238

a. Subsection 2.2 C.: Revise to read "Insulate all sprinkler piping and fittings within 15 feet of exterior wall. Pipe insulation shall be one in. thick, Manville Micro LOCK Fiberglass with all service jacket, or an approved equal."

b. Subsection 2.2 D.: Revise to read "Fittings, valves, flanges and accessories shall be insulated with compressed fiberglass and wired in place with 18-gauge galvanized steel wire. That the entire surface will be coated with a uniform coat of a fire retardent vapor barrier, and have

embedded into the wet coat a layer of fiberglass tape extending 2 in. onto adjacent pipe covering. Pre-molded PVC insulation covers are not permitted.

25 8. Drawing Number FP-100, Building Department Note 11.: Revise to read "... as per table 3-11.6.3(a)."

26 9. Drawing Number FP-300

a. Submit hydraulic sprinkler calculation, with drawing showing all node points, for area of application shown.

b. Submit plans for the UPS room's clean agent gas suppression system showing detection equipment, discharge calculations, equipment and piping alarm systems and all other safety features. Provide system's sequence of operation, audible and visible alarms within and outside the room, suitable fixed emergency forced ventilation, etc.

c. Note 2 refers to ~~[illegible]~~ "Detail FP-500"; ~~revise accordingly~~ SHOW THE DETAIL ON THE DRAWING.

27 10. Drawing Number FP-301

a. Submit hydraulic sprinkler calculations, with drawings showing all node points, ~~for areas of application shown.~~

b. Drawing shows sidewall sprinkler heads to protect trading area. Revise to pendant type heads as shown on part section on Drawing Number FP-100.

c. ~~Drawing refers to a missing detail 1/FP-500 near column 330; revise accordingly.~~

THE PORT AUTHORITY OF NEW YORK & N JERSEY
ENGINEERING DEPARTMENT - DESIGN DIVISION TA.. REVIEW REQUEST

D. LUEY (74 5)

To: [redacted] (Reviewer) Location: _____

From: OAD DESIGN STANDARDS Date: 2/26/99

TAA # WC99-2114-001 Facility: 2 WTC/88 & 89

Tenant: KEEFE BRUYETTE & WOODS (Submission #) Rec'd. Date: 2/24/99

Description of Work: TENANT BUILDOUT

Charge Code: WO2 992114

Review Disciplines

- ☐ Architectural
- ☐ Structural
- ☐ HVAC
- ☐ [redacted]
- ☐ Plumbing
- ☐ Fire Protection/ Sprinklers/Etc.
- ☐ Electrical/Metering
- ☐ Utility> 600 V/ 5 KV
- ☐ Civil
- ☐ Geotechnical
- ☐ Environmental/Asbestos Abatemt.
- ☐ Fueling
- ☐ Radio Frequency Coordination
- ☐ Corrosion Protection
- ☐ Elevator/Escalator
- ☐ Traffic
- ☐ Other(specify) _____

Attachments

- ☐ Document List
- ☑ Contract Drawings
- ☐ Contract Specifications
- ☐ Tenant Response
- ☐ Calculations
- ☐ Catalog Cuts
- ☐ Reports
- ☐ Certifications
- ☐ Previous Rider
- ☑ Other (specify) PROJ. MANUAL/SPECS

Special Instructions

SELF-CERTIFIED

DWGS ETC. DISTRIBUTED TO D. LUEY. H. MAC DONALD TO ARRANGE FOR ACCESS. THANKS, JIM

Reviewer Information V. FIORE

Name _____
Date started _____
Date completed 3-3-99
Review time(days) _____
New comments 1
Repeat comments 0

DUE DATE: 3/12/99

Please notify the COORDINATOR if you cannot complete the review by the due date.

Please review the attached submittal: FAX and send your written comments to the following COORDINATOR:

Name: M. PALMIERI Location: 51N

Phone #:(212) 435-8614 FAX #: (212) 435-2069*

* If responding by fax, please advise coordinator in advance at telephone number indicated.

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
ENGINEERING DEPARTMENT - DESIGN DIVISION TAA REVIEW REQUEST

D. LUEY (74 5)

To: H. MAC DONALD (74 5) (Reviewer) Location: _____

From: QAD DESIGN STANDARDS Date: 2/26/99

TAA # NC99-2114-001 Facility: 2 WTC/88 & 89

Tenant: KEEFE BRUYETTE & WOODS (Submission #) Rec'd. Date: 2/24/99

Description of Work: TENANT BUILDOUT

Charge Code: NO2 992114

Review Disciplines

- [ ] Architectural
- [ ] Structural
- [ ] HVAC
- [x] Plumbing
- [x] Fire Protection/ Sprinklers/Etc.
- [ ] Electrical/Metering
- [x] Utility> 600 V/ 5 KV
- [ ] Civil
- [ ] Geotechnical
- [ ] Environmental/Asbestos Abatem't.
- [ ] Fueling
- [ ] Radio Frequency Coordination
- [ ] Corrosion Protection
- [ ] Elevator/Escalator
- [x] Traffic
- [ ] Other(specify) _____

Attachments

- [ ] Document List
- [x] Contract Drawings
- [ ] Contract Specifications
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- [ ] Previous Rider
- [x] Other (specify) PROJ. MANUAL/SPECS

Special Instructions
SELF-CERTIFIED

DWGS, ETC. DISTRIBUTED TO D. LUEY. H. MAC DONALD TO ARRANGE FOR ACCESS. THANKS,

Reviewer Information

Name Danny Luey
Date started March 1, 1999
Date completed March 5, 1999
Review time(days) ___
New comments 10
Repeat comments ___

DUE DATE: 3/12/99

Please notify the COORDINATOR if you cannot complete the review by the due date.

Please review the attached submittal; FAX and send your written comments to the following COORDINATOR:

Name: M. PALMIERI Location: 51 N

Phone #:(212) 435-9614 FAX #: (212) 435-2069*

* If responding by fax, please advise coordinator in advance at telephone number indicated.

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
ENGINEERING DEPARTMENT - DESIGN DIVISION TAA REVIEW REQUEST

D. LUEY (74 S)

To: H. MACDONALD (74 S) (Reviewer) Location: _____

From: QAD DESIGN STANDARDS Date: 2/26/99

TAA # WC99-2114-001 Facility: 2 WTC/88 & 89

Tenant: KEEFE BRUYETTE & WOODS (Submission #) Rec'd. Date: 2/24/99

Description of Work: TENANT BUILDOUT

Charge Code: WO2 992114

Review Disciplines

- [ ] Architectural
- [ ] Structural
- [ ] HVAC
- [x] Plumbing
- [x] Fire Protection/ Sprinklers/Etc.
- [ ] Electrical/Metering
- [ ] Utility> 600 V/ 5 KV
- [ ] Civil
- [ ] Geotechnical
- [ ] Environmental/Asbestos Abatem't.
- [ ] Fueling
- [ ] Radio Frequency Coordination
- [ ] Corrosion Protection
- [ ] Elevator/Escalator
- [ ] Traffic
- [ ] Other(specify) _____

Attachments

- [ ] Document List
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- [ ] Reports
- [ ] Certifications
- [ ] Previous Rider
- [x] Other (specify) PROJ. MANUAL / SPECS

Special Instructions

SELF-CERTIFIED

DWGS, ETC. DISTRIBUTED TO D. LUEY. H. MAC DONALD TO ARRANGE FOR ACCESS. THANKS, JM

Reviewer Information V. FIORE

Name _____
Date started
Date completed 3-3-99
Review time(days)
New comments 1
Repeat comments 0

DUE DATE: 3/12/99

Please notify the COORDINATOR if you cannot complete the review by the due date.

Please review the attached submittal; FAX and send your written comments to the following COORDINATOR:

Name: M. PALMIERI Location: 51 N

Phone #:(212) 435-8614 FAX #: (212) 435-2069*

* If responding by fax, please advise coordinator in advance at telephone number indicated.

TENANT ALTERATION PLUMBING REVIEW

The Port Authority of New York & New Jersey . Engineering Department .

APPLICATION & SUBMISSION # WC99-2114-001

DUE DATE: **3 / 12 / 99**

COORDINATOR : M. PALMIERI *EXT*: 8614

FACILITY: WTC

TENANT: KEEFE BRUYETTE & WOODS

CHARGE CODE: W02 992 114

BUILDING CODE: NYCBC , REFERENCE STANDARD RS - 16

DISCIPLINE : PLUMBING

REVIEWED BY: V. FIORE *EXT.:* 7466

DATE: 2 / 12 / 99

COMMENTS:

DWG. P-301
1. INDICATE PRV'S FOR WATER SUPPLIES TO PANTRY SINK IN ROOM # 8940
SECTION P107.5 (d)

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
ENGINEERING DEPARTMENT - DESIGN DIVISION TAA REVIEW REQUEST

D. LUEY (74 5)

To: H. MAC DONALD (74 5) (Reviewer) Location: _____

From: QAD DESIGN STANDARDS Date: 2/26/99

TAA # WC99-2114-001 Facility: 2 WTC/88 & 89

Tenant: KEEFE BRUYETTE & WOODS (Submission #) Rec'd. Date: 2/24/99

Description of Work: TENANT BUILDOUT

Charge Code: WO2 992114

Review Disciplines

- [ ] Architectural
- [ ] Structural
- [ ] HVAC
- [x] Plumbing
- [x] Fire Protection/ Sprinklers/Etc.
- [ ] Electrical/Metering
- [x] Utility> 600 V/ 5 KV
- [ ] Civil
- [ ] Geotechnical
- [ ] Environmental/Asbestos Abatem't.
- [ ] Fueling
- [ ] Radio Frequency Coordination
- [ ] Corrosion Protection
- [ ] Elevator/Escalator
- [x] Traffic
- [ ] Other(specify) _____

Attachments

- [ ] Document List
- [x] Contract Drawings
- [ ] Contract Specifications
- [x] Tenant Response
- [ ] Calculations
- [ ] Catalog Cuts
- [ ] Reports
- [ ] Certifications
- [ ] Previous Rider
- [x] Other (specify) PROJ. MANUAL/SPECS

Special Instructions

SELF-CERTIFIED

DWGS, ETC. DISTRIBUTED TO D. LUEY. H. MAC DONALD TO ARRANGE FOR ACCESS. THANKS, JIM

DUE DATE: 3/12/99

Reviewer Information

Name _____
Date started _____
Date completed _____
Review time(days) ___
New comments ___
Repeat comments ___

Please notify the COORDINATOR if you cannot complete the review by the due date.

Please review the attached submittal; FAX and send your written comments to the following COORDINATOR:

Name: M. PALMIERI Location: 51 N

Phone #:(212) 435-8614 FAX #: (212) 435-2069*

If responding by fax, please advise coordinator in advance at telephone umber indicated.

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
ENGINEERING DEPARTMENT - DESIGN DIVISION TAA REVIEW REQUEST

D. LUEY (745)

To: H. MAC DONALD (745) (Reviewer) Location: _____

From: QAD DESIGN STANDARDS Date: 2/26/99

TAA # WC99-2114-001 Facility: 2 WTC/88 & 89

Tenant: KEEFE BRUYETTE & WOODS (Submission #) Rec'd. Date: 2/24/99

Description of Work: TENANT BUILDOUT

Charge Code: W02 992114

Review Disciplines

- [ ] Architectural
- [ ] Structural
- [ ] HVAC
- [x] Plumbing *
- [x] Fire Protection/ Sprinklers/Etc.
- [ ] Electrical/Metering
- [ ] Utility> 600 V/ 5 KV
- [ ] Civil
- [ ] Geotechnical
- [ ] Environmental/Asbestos Abatem't.
- [ ] Fueling
- [ ] Radio Frequency Coordination
- [ ] Corrosion Protection
- [ ] Elevator/Escalator
- [ ] Traffic
- [ ] Other(specify) _____

Attachments

- [ ] Document List
- [x] Contract Drawings
- [ ] Contract Specifications
- [ ] Tenant Response
- [ ] Calculations
- [ ] Catalog Cuts
- [ ] Reports
- [ ] Certifications
- [ ] Previous Rider
- [x] Other (specify) PROJ. MANUAL / SPECS

Special Instructions

SELF-CERTIFIED

DWGS, ETC. DISTRIBUTED TO D. LUEY. H. MAC DONALD TO ARRANGE FOR ACCESS. THANKS, JM

DUE DATE: 3/12/99

Reviewer Information

Name _____
Date started _____
Date completed _____
Review time(days) ___
New comments ___
Repeat comments ___

Please notify the COORDINATOR if you cannot complete the review by the due date.

Please review the attached submittal; FAX and send your written comments to the following COORDINATOR:

Name: M. PALMIERI Location: 51 N

Phone #:(212) 435-8614 FAX #: (212) 435-2069*

* If responding by fax, please advise coordinator in advance at telephone number indicated.

Buckslip THE PORT AUTHORITY OF NY & NJ

Piyush Majmudar Location

om Peter Pappas - QAD Date 2/12/99

TAA 992114 Keefe Bruyette & Wood

QAD will Audit this Job.

Please forward 3 additional Sets of Drawings & Specifications.

Thank You

Pete Pappas

"SELF CERTIFICATION" Revised 2/99

THE PORT THORITY OF NEW YORK AND . W JERSEY

TENANT ALTERATION APPLICATION REVIEW REQUEST PROJECT.

ATTN: SAROJ BOHL

DISTRIBUTION		
No.	To	Facility
1	QAD	5IN
1	D. Warren	PATC Zip43
1	S.P. Chiao	88 S
1	G. Daly	88 S
1	B. Brown	88 S
1	F. DeMartini/Nick Strenk - LERA	2 WTC 37th Fl
2 1	B. Devlin CADD Disk Set	2 WTC 37th Fl.
1	P. Negron	2 WTC 37th Fl
1	C. Semah	2 WTC 35th Fl
RECORD	P. MAJMUDAR	1WTC 88 FLR.

Facility WTC2 Floor 88-89 TAA No. 992114 Date 2/18/99

Application/Tenant KEEFE BRUYETTE & WOODS

Consultant CETRA / RUDDY INC.

Estimated Cost $7.8 Mil Submittal No. 1 (ONE)

Description of Work

TENANT BUILT OUT OFFICE SPACE.

OFFICE COPY

Please review the attached (revised) application and send comments to:

Name: Piyush Majmudar

Location: 1 WTC, 88S Phone No. 435-2266

Fax No.: 435-8168

__/__/__ *Due Date*

THE PORT AUTHORITY OF N.Y. & N.J.
ENGINEERING & CONSTRUCTION QUALITY ASSURANCE DIV.
DESIGN STANDARDS
FEB 19 1999
WC 99-2114 (1)
RECEIVED
ALTERATIONS APPLICATION
TENANT CONSTRUCTION REVIEW UNIT

DESIGN DISCIPLINES

- [x] Architectural
- [ ] Egress Analysis
- [x] Structural
- [x] HVAC
- [x] Plumbing
- [x] Sprinkler
- [x] Electrical
- [ ] Utility > 600 V
- [ ] Civil
- [ ] Geotechnical
- [ ] Environmental
- [ ] Fueling
- [ ] Radio Freq. Coord.
- [ ] Corrosion Protection
- [ ] Elevator/Escalator
- [x] Other TELECOMMUNICATION.

ATTACHMENTS

- [x] Document List
- [x] Contract Drawings
- [x] Contract Specifications
- [ ] Tenant Response
- [ ] Computations
- [ ] Reports
- [ ] Catalog Cuts
- [x] Other → TENANT ALT. APP, RIDER A, B, C, F FORM G-1, G-2 & G.S. LIABILITY CERT

DESCRIPTION

VOL. 1 & VOL. 2.

SPECIAL INSTRUCTIONS

PLEASE ADVISE WITHIN 48 HRS (2 DAYS)
IF ABOVE STATED TAA WILL BE AUDITED.
CONTACT ME @ 2266.

Copy to: T. Koebel, J. Napolitano, E. Monteverde, J. Richardson, N. Seliga, F. Varriano

Piyush Majmudar. (Proj. Mgr.)

DINA MORIN (8494) (Zone Prop. Mgr.)

P. K Majmudar
Signature

A-701	STAIR #1 SECTIONS/DETAILS
A-702	STAIR #2 PLAN
A-703	STAIR #2 SECTIONS/DETAILS
A-711	METAL & GLASS PARTITION DETAILS
A-800	MISC. DETAILS
A-801	MISC. DETAILS
A-802	NOT USED
A-803	FABRIC PANEL DETAILS
A-804	89TH FLOOR CORRIDOR CEILING DETAILS
A-805	89TH FLOOR TRADING ROOM CEILING DETAILS
A-806	88TH & 89TH FLOORS CEILING DETAILS
A-807	88TH & 89TH FLOORS CEILING DETAILS
A-808	89TH FLOOR EXEC. BATH DETAILS
A-809	MISC. SECTIONS & DETAILS,
A-900	88TH & 89TH FLOORS RECEPTION DESKS
A-901	89TH FLOOR EXEC. SECRETARIAL DESKS
A-902	89TH FLOOR J. MCDERMOTT OFFICE
A-903	89TH FLOOR EXEC. AREA-PART PLAN DETAILS
A-904	88TH & 89TH FLOOR PANTRY DETAILS
A-905	89TH FLOOR RECEPTION - PART PLAN DETAILS
A-906	89TH FLOOR LUNCH RM. MILLWORK/MISC. MILLWORK
A-907	89TH FLOOR EXEC. SECRETARIAL MILLWORK DETAILS
A-908	88TH FLOOR ASSET MGMT. RECEPTION MILLWORK/ 88TH & 89TH FLOOR MISC. MILLWORK
A-909	89TH FLOOR TRADING AREA MILLWORK
A-910	88TH & 89TH FLOOR MISC. MILLWORK
C-101	88TH FLOOR CORING CRITERIA PLAN
C-102	89TH FLOOR CORING CRITERIA PLAN
EG-101	88TH FLOOR EGRESS PLAN
EG-102	89TH FLOOR EGRESS PLAN
F-101	88TH FLOOR FURNITURE PLAN
F-102	89TH FLOOR FURNITURE PLAN

STRUCTURAL

S-1	I: RCONNECTING STAIR #1	N
S-2	INTERCONNECTING STAIR #2	N

TELECOMMUNICATIONS

T-101	88TH FLOOR CABLING DIAGRAM	N
T-102	89TH FLOOR CABLING DIAGRAM	N

PA 531
6-73

File Fee #
Contract #

THE PORT AUTHORITY OF NY & NJ
One World Trade Center, New York, N.Y. 10048

For Port Authority use only
FACILITY WTC
DATE / /
APPLICATION NO. 992 114
APPLICANT'S NAME KBW

TENANT CONSTRUCTION OR ALTERATION APPLICATION

APPLICANT MUST READ THE TERMS AND CONDITIONS PRINTED ON THE REVERSE HEREOF

The Applicant shall not commence performance of any of the said work prior to the receipt by Applicant of a copy of this application duly signed in Part Two hereof on behalf of The Port Authority of New York and New Jersey. Upon receipt thereof, the Applicant agrees to perform said work in accordance with the following "Information to be Furnished by Applicant" and to comply with and be bound by all requirements and conditions set forth below under the remarks, if any, in Part Two hereof and the terms and conditions set forth on the reverse hereof.

PART ONE: Information to be furnished by Applicant (Refer to your lease or permit for required information)

Permission is hereby requested to perform the following described work on the space occupied by the Applicant

AT (FACILITY)	PURSUANT TO (LEASE, SPACE PERMIT) NUMBER	LOCATION (BUILDING NUMBER OR AREA) OF SPACE TO BE ALTERED
WTC		2 World Trade Center, 88th Floor & 89 Floor

DESCRIPTION OF WORK AND REASON

General office construction as per attached plans.

ESTIMATED COST OF WORK	ESTIMATED TIME TO COMPLETE (DAYS)	STARTING DATE	COMPLETION DATE
$7.8 Mil.	10 mos.	3/1/99	12/31/99

Plans: Prints of each drawing must be submitted with copies of application. Include floor plan and show area affected by proposed work (size 8 1/2" x 11" or larger).

TITLE OF DRAWING	DRAWING NUMBER	DATED
Keefe, Bruyette & Woods, Inc. 2 World Trade Center 88th & 89th Floors	See attached list	2.16.99

NAME & ADDRESS OF CONTRACTOR (IF NOT KNOWN, SUBMIT LATER)	NAME AND ADDRESS OF ENGINEER OR ARCHITECT	TELEPHONE NUMBER / LICENSE NUMBER
Linmar Construction 41 West 25th Street New York, NY 10010-2021	John Cetra, RA Cetra/Ruddy Inc.	941-9801 018861-1

SEND CORRESPONDENCE TO:
(NAME AND ADDRESS OF EMPLOYEE IN CHARGE OF WORK)

Adam Nowicki
At address above

TELEPHONE NUMBER 212 633-1414

ENGINEER OR ARCHITECT CERTIFICATION

I have supervised the preparation of plans and specifications for the entire work represented hereby and hereby certify that the same conform to the requirements of the respective enactments, ordinances, resolutions and regulations of the City, town or municipality in regard to [illegible] buildings and structures and in regard to [illegible] which would be applicable if the Port Authority were a private corporation.

LICENSE NO. 018861-1

APPLICANT'S NAME (AS IT APPEARS ON LEASE OR PERMIT)

BY (SIGNATURE OF AUTHORIZED REP.)	TITLE	DATE	SIGNATURE OF LICENSED PROFESSIONAL ENGINEER OR ARCHITECT	DATE
	EVP/CFO	2/16/99		2/16/99

The Contractor by signing below agrees to all the terms and conditions on this application and printed on the reverse side thereof, including #5 indemnifying the Port Authority, and further agrees to be bound by all riders and schedules attached to this application

Signature: _____ 2/16/99
(Contractor) Date

Address: 41 West 25th Street
New York, NY 10010-2021

☒ The Applicant must check here if the Professional Certification Program is elected for tenant construction or alteration at the World Trade Center.

Signature: _____ 2/16/99
(Applicant Officer/Partner) Date

THE PORT AUTHORITY OF NY & NJ
ENGINEERING DEPARTMENT
DESIGN SERVICES

FEB 19 1999
WO 99-2114 (1)
RECEIVED

Please advise the undersigned, in writing, when this work has been completed.

PART TWO: Prepared by Port Authority and returned to Applicant

The above Application is ☐ Approved ☐ Disapproved. Subject to the following conditions:

☐ Continued on Rider "A," "B," "C," "F," and "G" (Rider G will be included only for the Professional Certification Program)

THE PORT AUTHORITY OF NY & NJ

BY TENANT CONSTRUCTION [illegible]

INSPECTED BY	DATE	TITLE	DATE
	/ /	Manager of Tenant ~~and Technical Services~~/WTD	2/18/99

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY): 3-31-98

PRODUCER

ALBERT PALANCIA AGENCY INC
116 MAMARONECK AVE POBOX 26
MAMARONECK NEW YORK 10543-0026
914-698-1373/FAX914-698-0125

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMA ONLY AND CONFERS NO RIGHTS UPON THE CERTIFIC HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEN ALTER THE COVERAGE AFFORDED BY THE POLICIES BE

INSURED

Linmar Construction Corp

50 West 17th Street
New York,NY 10011

COMPANIES AFFORDING COVERAGE

COMPANY A: Reliance National Indemnity Co

COMPANY B: RLI Insurance Co

COMPANY C: State Insurance Fund

COMPANY D: Amalgamated Life Ins co

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLI INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO W CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL T EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR OWNER'S & CONTRACTOR'S PRO	NG1175-5613-00	4-1-98	4-1-99	GENERAL AGGREGATE PRODUCTS - COMP/OP AGG PERSONAL & ADV INJURY EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person)	$2,000,000 $2,000,000 $1,000,000 $1,000,000 $ 50,000 $ 5,000
B	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS	B-970401	4-1-98	4-1-99	COMBINED SINGLE LIMIT BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE	$1,000,000 $ $ $
	GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EACH ACCIDENT AGGREGATE	$ $ $
B	EXCESS LIABILITY X UMBRELLA FORM OTHER THAN UMBRELLA FORM	B-970401	4-1-98	4-1-99	EACH OCCURRENCE AGGREGATE 	$5,000,000 $5,000,000 $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE INCL / EXCL	1143 281-2	4-1-98	4-1-99	WC STATUTORY LIMITS / OTHER EL EACH ACCIDENT EL DISEASE - POLICY LIMIT EL DISEASE - EA EMPLOYEE	 $100,000 $500,000 $100,000
D	OTHER DISABILITY	274A57	5-1-97 5-1-98	5-1-98 5-1-99	STATUTORY	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

ALL OPERATIONS IN NYS. Additional insured: Manager of Tenant and Technical Services Division, World Trade Department, The Port Authority of New York and New Jersey.

CERTIFICATE HOLDER

Manager of Tenant and Technical Services Division, World Trade Department.
The Port Authority of New York and New Jersey.
One World Trade Center, Suite 36 South
New York, NY 10048

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIA OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATI

THE PORT AUTHORITY OF N.Y. & N.J. ENGINEERING DESIGN SECTION

AUTHORIZED REPRESENTATIVE

ACORD 25-S (1/95)

RECEIVED
FEB 19 1999
WC99-2114 (1)
ALTERATIONS APPLICATION
TENANT CONSTRUCTION

WORLD TRADE C[illegible] TER
TENANT CONSTRUCTION OR ALTERATION APPLICATION

Tenant: Keefe, Bruyette & Woods, Inc. Lease No.: WT-3415-B-88,89 (1770)

Contract No.: WTC- Tenant Alteration Application No.: ~~992108~~ 992114 88th Floc ~~989th~~ 89th Floc

Filing Fee No.:

THE PORT AUTHORITY ENGINEERING DEPARTMENT DESIGN SECTION

FEB 19 1999
WC99-2114 (1)
RECEIVED
TENANT CONSTRUCTION REVIEW

Rider "A"

Additional Terms and Conditions

A. The agreement between the Applicant and any materialman, contractor, subcontractor shall contain the following provisions:

1. That the Contractor shall arrange with the Port Authority's WTC Construction Division for scheduled use of material elevators 48 hours in advance of required use.

   It is presently anticipated, but not guaranteed that the elevator cars used for hoisting will be made available to the Contractor during normal working hours. 8:00 am to 3:30 pm. Monday through Friday, and outside normal working hours, at such times as they are available. The assignment of such cars during the Contractor's normal and overtime hours will be on a first come, first serve basis in accordance with a schedule which will be determined by the WTC Construction Division on a week-to-week basis, approximately 48 hours in advance of usage. Contractual commitments with others have been made and will be made during the period when deliveries are to be made hereunder. No representation is made that these cars will be made available to the Contractor on specific dates, or at any given time either during, or outside normal working hours.

   After making such arrangements and being assigned elevator hours for deliveries, the Contractor shall pay for all the assigned time plus usage in excess of such assigned time at the following rates:

   a) For the first hour, part thereof, a minimum of $75.00 per hour, per car during normal working hours, and $150.00 per hour, per car during other than normal working hours.

   b) For each subsequent half hour, or portion thereof, a minimum of $75.00 per hour per car during normal working hours; $150.00 per hour per car during other than normal hours

2. That upon notice from the Port Authority, the Contractor shall halt any and all construction which in the opinion of the Port Authority is not or would not be in conformity with the approved Contract Documents and that construction will not proceed until the Contractor's proposal to correct the work and procedures have been approved by the Port Authority.

3. That the Contractor shall daily clean up all refuse, rubbish, scrap materials and debris caused by his operation; that at all times, the construction site shall present a neat, orderly and workmanlike appearance. The Contractor shall remove and deposit the above refuse, rubbish, scrap materials and debris into containers (capacity one-half (1/2) cubic yards) centrally located, which will be supplied and emptied by the Authority, dependent upon the amount of debris removed at a minimum charge of $51.00 per half cubic yard to the Contractor.

   If the Contractor fails to place the refuse, rubbish, scrap materials and debris on a daily basis into such containers, then the Authority shall authorize others to perform these removals and the cost thereof shall be back-charged to the Contractor. These back-charges will be determined by the Authority. The removal as described above, shall be accomplished without storing excess quantities of any refuse, rubbish, scrap materials and debris of any sort resulting from the removal operations. However, it shall be the Contractor's responsibility to advise the Authority when he requires containers.

Rider "A"

Additional Terms and Conditions

4. That the Contractor shall compensate the Port Authority, at the rate of twenty-five Dollars ($25.00) per hour, or portion thereof (minimum of four (4) hours), provided by a uniformed guard in connection with maintaining security in a tenant area adjacent to, over or under the premises covered by this approved Application due to work required under this Application during the absence of any representative of that tenant, or the requirement of that tenant that a guard be provided in his area.

5. That the Applicant shall withhold payment to the Contractor of at least ten percent (10%) of the contract cost until the Applicant receives the certificate of completion from the Port Authority indicating that the work has been completed in accordance with the terms and conditions of the Application and that all claims by the Port Authority for services in connection with inspection of the work, hoisting, cleanup, or any other claims deemed appropriate by the Port Authority have been satisfied; and that the Applicant, out of such monies withheld, will have the right and shall compensate the Port Authority for such claims.

   Prior to execution of any agreement between the Applicant and a Contractor, subcontractor, or materialman, the tenant shall submit their name, address and a telephone number. In no case shall the Applicant enter into any agreement for work on the premises with any contractor, subcontractor, or materialman who have not been approved in writing by the Port Authority for such work.

   This Application shall be deemed withdrawn by the Applicant in the event performance of the work covered hereunder has not been commenced within one (1) year after the approval date, as shown in the lower right corner of this Application. In such event, the Applicant shall not commence performance of any work until the Applicant has submitted a new application to the Port Authority for its approval and has received a copy of such Application duly signed in Part Two thereof on behalf of the Port Authority.

   Effective July 1, 1992, the Port Authority will charge fees for the review of Tenant Alteration, or Construction Applications, as per the following schedule, which represents fees similar to those of New York City for filing alteration plans in privately owned buildings.

Construction Dollars	Dollar Value of Fee
Up to $1,000.00	$ 75.00
$1001.00 to $2,000.00	$100.00
$2001.00 to $3,000.00	$120.00
$3001.00 to $4,000.00	$140.00
$4001.00 to $5,000.00	$160.00

In excess of $5,000.00, the fee is $160.00 plus $10.30 per $1,000.00 or fraction thereof above $5,000.00

Initialed

Applicant: _____ Date: 2.16.99

Contractor: _____ Date: 2.16.99

WORLD TRADE C TER
TENANT CONSTRUCTION OR ALTERATION APPLICATION

Tenant: Keefe, Bruyette & Woods, Inc. | Lease No.: WT-3415-B-88, 89 (1770)

Contract No.: WTC- | Tenant Alteration Application No.: ~~992108~~ 992114 88th Floor ~~992108~~ 89th Floor

Filing Fee No.:

Rider "B"

Claims of Third Persons

The contractor undertakes to pay all claims lawfully made against him by subcontractors, materialmen and workmen, and all claims lawfully made against him by other third party persons arising out of or in connection with or because of the performance of this Contract and to cause all subcontractors to pay, all such claims lawfully made against them.

If the Contractor fails to pay any such claim lawfully made against him, or any subcontractor of the aforesaid contingencies is likely to arise, then the owner shall have the right, in its discretion, to withhold out of any payment (final or otherwise and even though such payment has already been certified as due) such sums as the owner may deem ample to assure the payment of such claims and to apply such sums in such manner as the owner may deem proper to satisfy such claims. All sums so applied shall be deducted from the owner's compensation. omission by the owner to withhold out of any payment, final or otherwise, a sum of any of the above contingencies, even though such contingency has occurred at the time of such payment, shall not be deemed to indicate that the owner does not intend to exercise its right with respect to such contingency. Neither the above provisions for rights of the owner to withhold and apply monies, nor any exercise, or attempted exercise of, or omission to exercise, such rights by the owner shall create any obligation of any kind to such materialmen, subcontractors, workmen, or other third persons.

Until actual payment to the Contractor, his right to any amount to be paid under this Contract (even though such amount has already been certified as due) shall be subordinate to the rights of the owner under this numbered clause

No Port Authority Obligations

No obligations, or liabilities to the Contractor are assumed, or intended to be assumed by the Port Authority

Indemnity

A. The Contractor shall indemnify and hold harmless the Port Authority, its Commissioners, Officers, Agents and Employees, against and from,

1. The risk of injuries (including wrongful death), or damage direct or consequential, to it or them or to its or their property, arising out of, or in connection with the performance of the work, and,

2. The risk of claims and demands by third persons, arising, or alleged to arise out of the performance of the work, whether such risks arise out of acts, or omissions of the Contractor, or the Port Authority, or otherwise.

B. If so directed, the Contractor shall at its own expense defend any suit based upon any such claim, or demand (even if such suit, claim, or demand is groundless, false, or fraudulent), and in handling such, it shall not, without obtaining express advance permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, Officers, Agents or Employees,the governmental nature of the Port Authority, or the provision of any statues respecting suits against the Port Authority.

Initialed:

Applicant: _____ Date: 2.16.99

Contractor: _____ Date: 2.16.99

WORLD TRADE CENTER
TENANT CONSTRUCTION OR ALTERATION APPLICATION

Tenant: Keefe, Bruyette & Woods, Inc.	Lease No.: WT- 3415-B-88,89 (1770)
Contract No.: WTC-	Tenant Alteration Application No.: ~~992188~~ 992114 ~~992188~~ 88th Fl. / 89th Fl.
Filing Fee No.:	

Rider "C"

A. General Requirements

1. a) The WTC Project Manager (Planning & Design Division) for this T.A.A. is 992114 located at 1WTC. Suite ~~88~~ South. Telephone: 212-435- 2266

   b) The WTC Supervising Engineer is Mr. ~~Joseph Napolitano~~ R. Rafferty located at 1WTC. Suite 88-South. Telephone: 212-435-~~2283~~ 2292

2. In case of start of construction via an approved Tenant Alteration Application. or otherwise. it shall be the responsibility of the Tenant. or his Consultant to comply with any additional requirements resulting from Port Authority review.

3. *Only the Contractor. whose signature appears on this Application and his sub-contractors. will be* permitted to begin work at the construction site after approval of his Certification of Insurance. Any other Contractor who may be required to perform work under this Application will not be permitted *to work at the construction site until he provides a separate Certification of Insurance which is* approved by the Port Authority.

4. The Contractor shall notify the WTC Supervising Engineer and the Manager of WTC Plant and Structure. or their designated representatives. regarding any request for shutdown of base building utilities which will cause interruption of services in other areas of the building. Such request must be delivered to the Manager of WTC Plant and Structures at least ten (10) working days prior to the *requested shutdown and shall be subject to the final approval of the Manager of WTC Plant and Structures.*

5. All arrangements for temporary utilities. garbage removal. elevator services. etc.. are the responsibility of the Contractor.

6. *The Contractor shall at no time overload the freight elevators with his materials. Further. in order not* to create an unsafe condition. he shall notify the Port Authority Inspector whenever the weight of the materials will exceed 50% of the capacity of the elevator. In such cases. the Port Authority Inspector will make arrangements to have the elevator maintenance personnel temporarily support the elevator cab to prevent it from being out of level during loading as a result of cable stretch. The Contractor *shall reimburse the Port Authority for the cost of WTC Operations maintenance personnel at the rate* of $55.00 per hour.

7. The approval of all Shop Drawings is the responsibility of the Tenants Consultants. Approved copies of same shall be submitted to the World Trade Center Project Manager for record purposes.

8. The Contract Drawings duly approved by World Trade Center Planning & Design Division. and Shop Drawings approved by the Tenant's Consultants shall be the only drawings used for construction

9. All work under this Tenant Alteration Application will be subject to Port Authority inspection to ensure that it is in conformance with approved Contract Drawings. Specifications and Shop Drawings

10. Upon completion of this work, and issuance of the Permit to Occupy, one (1) complete set of reproducible Contact film, wash-off type "As-built" drawings (drawings should not be folded), conformed Specifications, all Shop Drawings, catalog cuts, etc., verified and approved by the responsible Architect/Engineer of Record, must be submitted to the World Trade Center Project Manager. In addition, one (1) copy of the AutoCAD compatible computer files that were used to prepare the drawings shall be submitted on 1.44 Megabyte floppy disk(s) for Port Authority records.

11. The Tenant and his Contractor shall plan and conduct all their operations as to work in harmony with others engaged at the construction site, and not to delay, endanger, or interfere with the operations of others.

12. The Port Authority maintains a stock of certain World Trade Center standard materials, which the Contractor may purchase. A complete list of available materials is obtainable from Ms. Patricia Bonny, WTC Planning & Design Division, One World Trade Center, Suite 36 South, Telephone: 212-435-7002.

13. It is the responsibility of the Contractor to return all World Trade Center Building Standard attic stock materials to be salvaged, as specified and directed by the Port Authority Inspector from WTC Construction Division.

14. The Contractor shall submit affidavits attesting to the fire retardancy of all wood construction, temporary or permanent, prior to installation, per New York City Building Code Section 27-328, to the WTC Supervising Engineer, or to the WTC Construction Inspector representing him in the field.

15. The following criteria shall be adhered to for all new electrical/telephone outlet coring of floor slabs in any World Trade Center building:

    a) All coring through floor slabs shall be strictly in accordance with Port Authority coring criteria standard drawings S-C1, S-C2 and S-C3.

    b) The Tenant's Consultant shall submit to the Port Authority a scaled core drawing with all Tenant Alteration Applications that require coring to be performed. The drawing(s) shall encompass the entire demised leasehold where coring work is extensive. Each cored hole shall be identified as to new, existing, active, abandoned, abandoned and filled, etc., and they shall be located with dimensions. Sizes of cores shall also be indicated. Where coring is required in conjunction with a Tenant Alteration Application of a minor nature, adjacent existing cores shall be identified and located by dimensions on the core drawing.

    c) All floor outlets to be removed, or abandoned, shall have all power wiring and cables removed back to the base building electrical closet panels, including all duct, wires and cables that are PVC-insulated. The after-set fittings shall be removed and filled in accordance with requirements of "a" above.

    d) When removing unused, or abandoned communication cables, the cables shall be removed from the cells all the way back to the binding posts in the Telephone Closets.

    e) Upon verification that communication equipment in telephone closets is completely abandoned, contractor shall remove frames, card holders and miscellaneous inactive equipment as well.

16. Core drilling and the shooting of studs into slabs, etc., with the use of power actuated fasteners, pneumatic and electrical handlers, or any other noise producing equipment shall be permitted only between the hours of 6:00 PM and 8:00 AM. Further, an observer is required on the floor below to check for water leakage during the core drilling operation. In the event the Contractor is engaged in any other "noisy" operations which disturb adjacent Tenant(s) operations, the Port Authority, at its sole discretion, may require the Contractor to perform said "noisy" operations during non-business hours.

17. In the event the Contractor's work will affect the activation of smoke detectors, or other warning devices, the Contractor shall request the WTC Construction Inspector to have WTC Operations maintenance personnel deactivate such devices. During the deactivation period, the contractor shall provide qualified personnel to look for any unsafe conditions and contact the appropriate authorized personnel to take the necessary action, as directed by the WTC Construction Inspector Upon termination of above stated work conditions, the Contractor shall request the WTC Construction Inspector and WTC Operations maintenance personnel to activate the smoke detectors and other warning devices The Contractor shall reimburse the Port Authority for the cost of providing WTC Operations maintenance personnel at the rate of & 45.00 per hour (normal time), or S55.00 per hour (premium time).

During burning and welding operations, the Contractor must use a smoke eater. Smoke eaters are available from the Port Authority at a rate of S25.00 per day, per unit.

18. Life Safety Systems

a) The Tenant's Consultant responsible for the preparation of Contract Documents shall provide wiring diagrams, installation procedures and applicable Shop Drawings for all new and existing life safety systems to be modified. The drawings shall indicate locations of cable terminations, sequence of operation, and specifications of all the component parts. All the life safety systems shall be connected to the World Trade Center Multiplex System. Systems involving more than one floor shall give a floor by floor fire indication to the Multiplex System. The applicable system shall include, but not be limited to, smoke detection, pre-action systems, and Halon. The documents required herein shall be submitted for Port Authority review at the time that other required Tenant Alteration Application documents are submitted.

b) The Contractor shall perform preliminary testing of all fire and life safety equipment and systems to ensure that each component of every system functions in accordance with the approved Contract Documents, including but not limited to all wiring and connections, flow alarms, tamper alarms, electrical controls, smoke detectors, automatic dampers, interlock devices, air testing of piping, and other testing, as directed by the Port Authority. An approved substitute for Halon, e.g., air carbon dioxide, or other inert gas, or a suitable Freon may be used as a test medium during the preliminary testing of a Halon installation. All preliminary and final testing shall be performed in the presence of sub-contractor's personnel and Port Authority staff, as required by the WTC Construction Supervising Engineer.

c) Any fire safety work, including but not limited to, smoke detectors, sprinklers, Halon systems, etc., shall be completed and operational prior to the Tenant occupying the premises. Occupancy may be permitted prior to completion of such work, only if approved by the Port Authority, in writing. In such instances, the Tenant must maintain a fire watch on the premises during the time that the premises remains unattended.

d) Prior to occupancy of the premises, and prior to issuance of a Certificate of Completion the Tenant shall furnish to the WTC Supervising Engineer, a copy of an executed Agreement between the Tenant and a Contractor who shall be responsible for inspection and maintenance, as required by the New York City Fire Prevention Code of each new and/or existing tenant life safety system, including but not limited to, smoke detection, pre-action sprinkler systems and Halon suppression systems. This Agreement may no be canceled, terminated, or modified without written advance request to the Port Authority .

e) The Agreement between the Tenant and the Contractor shall provide that the Contractor is approved by the City of New York to perform such maintenance and inspection functions; that the Contractor furnish copies of all periodic tests to the Port Authority Coordinator, Fire Safety Programs; that the Contractor will furnish copies of any renewal agreements at least 15 days prior to expiration and will notify the Port Authority Coordinator, Fire Safety Program, in the event that the Agreement has been canceled.

19. The Contractor shall mark the location of smoke detectors installed above ceilings with colored push-pins on the underside of the ceiling tiles. The pins may be obtained from WTC Operations at the B-2 Level. For smoke detectors located below the raised floors, the Contractor shall mark their locations with distinctive colored push-pins on the ceiling directly above the detectors, or mount on the wall within the room, a partial floor plan showing the raised floor area with dimensioned locations to each smoke detector.

20. It is required that existing demising walls be checked for penetrations and sealed to restore their fire rating. In addition, all existing structural steel fireproofing shall be patched where material is missing, as required by the WTC Supervising Engineer. The materials used for sealing penetrations and patching firepoofing shall be as approved by the Port Authority.

21. It shall be the responsibility of the Tenant's consultant to see to it that the following requirement is met: All electrical work to be performed, including all electrical devices to which, or from which, any electrical connection, or disconnections are to be made, shall be shown on the Electrical Drawings.

22. The Contractor shall remove all electrical devices, including all conduits and wiring specified on the drawings, to be no longer in use.

23. Materials containing PVC will not be permitted in any permanent construction except for carpeting and underlayment.

24. The Tenant's Consultant shall submit for review, and approval by the Port Authority, catalog cuts for all new electrical panels and new circuit breakers which shall indicate that they are U.L. listed. In addition, whenever circuit breakers are to be installed in existing panels, or in panels not made by the circuit breaker manufacturer, such circuit breakers shall be U.L. classified for use in load centers and panel-boards manufactured by others.

25. The Contractor shall not perform any construction, hook-up, demolition, etc., at any location other than within the physical boundaries of he construction site as shown on the Contract Drawings appended to the Tenant Alteration Application. For any work not specifically shown and noted on the approved Contract Drawings and which is outside of the construction site, and the scope of which is part of the approved Tenant Alteration Application, the Contractor shall submit to the WTC Supervising Engineer named herein before the exact routing to be followed in the performance of the Work. The routing shall then be evaluated by the WTC Asbestos Control Section to determine if any asbestos is present and if it might be disturbed.

B. Special Requirements: The following items, numbers 26 through 36, are not applicable to Communications Systems installations.

26. All permanent lock-sets, keying, etc., must be of the "Corbin" system and must conform with Port Authority requirements regarding stamping and keying of master ring cylinders having the Port Authority key-way. It is required that the Tenant purchase all their cylinders from the Port Authority. The Contractor must contact the World Trade Center Locksmith Shop, Four World Trade Center, 4th Floor, Telephone: 212-435-3182

Rider "C"

27. Induction Units:

    a) The Contractor shall thoroughly clean all induction units. removing all dust and debris from plenum chamber. All induction unit thermostats shall be thoroughly checked for proper operation and recalibrated where required. or replaced if not functional. Only thermostats manufactured by Honeywell shall be installed in the peripheral HVAC Systems.

    b) The Contractor shall adjust induction unit's performance and remove excessive induction units as required in the contract documents. The Contractor shall be carefubin removing the induction units. especially not to damage the piping.

    c) It is required that minimum six (6) inches clearance in front of induction unit intake grilles be provided to assure that the induction units can operate properly and delivery their design quantities.

28. Upon completion and testing of the HVAC Systems, four (4) copies of the Balancing Report must be submitted to the WTC Construction Supervising Engineer. One (1) copy shall be sent to the World Trade Center Project Manager. The testing must be performed in the presence of a WTC Construction Inspector.

29. Whenever equipment using condenser water is installed, the Contractor shall submit the following information o the WTC Supervising Engineer.

    a) A copy of the Name Plate Data for each A/C unit, including but not limited to the name of manufacturer. Model number. Serial number. and the rated capacity in BTU hour. or tons. This information shall be verified by the WTC Construction Inspector after installation is completed.

    b) Catalog cuts. operating manuals. and/or other documents which describe all the operating characteristics of each A/C unit.

    c) The information requested in the foregoing sub-paragraphs a) and b) of this numbered paragraph must be complied with prior to activating the system.

30. The following signage requirements shall be complied with by the Contactor:

    a) All open-ended piping terminating at a Janitor's Service Closet. ie., HVAC condensate drains. sprinkler system drains or other similar drain points. shall have durable signs securely affixed to the piping to identify the source of water by showing Tenant's name and system.

    b) All Tenant connections to the World Trade Center condenser water. or similar auxiliary systems shall have durable signs which identify the tenant: tenant floor location and service (supply. or return). These signs shall be clearly visible from the floor level and have black lettering on a safety green background .

    c) All Tenant standpipe or sprinkler systems shall have durable signs installed at all flow test connections which instruct the Inspector to notify the WTC Operations Desk at 435-4164 prior to the start of any system tests.

31. Whenever the support system for any suspended ceiling is to be altered or replaced. as a result of any work authorized by this Alteration Application. the Tenant's Architect. or Engineer. whose seal appears thereon. shall provide details of the ceiling support system which conform to the standards set forth in the applicable Section of the New York City Building Codes and in the Port Authority Tenant Construction Review Manual. Where these standards establish different. or conflicting requirements. the more stringent requirement will prevail.

32. Audibility of the Fire Alarm Communications System must be maintained, as required by New York City Building Code Sections 27-972 and 27-975.

    a) A preliminary audibility test of the existing Fire Alarm Communications System shall be done in the presence of WTC Construction Inspector, Fire Safety Engineer, the Contractor and a Tenant representative prior to commencement of any work in the ceiling. If the results of this preliminary test find the audibility unsatisfactory, the Port Authority will take corrective action. If the results are satisfactory, no action is required by the Port Authority. The Port Authority shall receive a written copy of the Test results which are to be submitted to the Fire Safety Engineer.

    b) After construction is completed, and as part of the final inspection, an audibility test must be performed in the presence of a WTC Construction Inspector. If the test results are unsatisfactory, it is then the responsibility of the Contractor to correct the problem with the additional speakers and/or amplifiers, as required.

33. If sprinklers are being installed, four (4) black and whites and one (1) reproducible copy of Shop Drawing(s) and Hydraulic Calculations stamped "Approved" by the Architect/Engineer of Record must be submitted to the WTC Project Manager for approval.

34. The Tenant shall insulate those 17" x 8" supply ducts that are parallel with the North and South exposures in Two World Trade Center, and the East and West exposures in One World Trade Center. A copy of the criteria for this work entitled: "Supply Duct Insulation Specification", dated June 8, 1983, can be obtained from the World Trade Center Planning and Design Project Manager.

35. No Tenant shall connect to World Trade Center base building pneumatic control piping. If pneumatic controls are required, the Tenant shall provide his own compressor.

36. All proposed public corridor signage not being provided by the Port Authority, including door signs, shall be submitted to the WTC Project Manager for review and approval prior to fabrication. Installation of customized signs is only permitted on Flex wood doors.

37. The drawings dated or revised dated, as referred to on the Application form are the only drawings released for construction by the approval of this Tenant Alteration Application. Additional drawings, or the above mentioned drawings with new revision dates are not approved for construction unless approved in writing, which is signed and issued by the WTC Project Manager named herein. No other drawings are permitted to be used on the construction site.

38. Retail tenants shall be responsible for protecting their store fronts with barricades that incorporate the World Trade Center's design standards.

39. Delivery of material to the World Trade Center via the Barclay Street ramp entrance is limited to trucks and trailers not exceeding 11'-9" in height unloaded.

40. The Contractor shall notify the Tenant's Architect/Engineer of Record and the WTC Supervising Engineer of any floor penetrations that are not shown on the contract drawings. Any necessary remedial closing of penetrations shall be as directed and supervised by the Tenant's Architect/Engineer in accordance with the requirements of Item 15 above.

41. Certification by the Registered Architect, or Professional Engineer, whose seal and signature appear on the Tenant Alteration review request shall be submitted to the Port Authority prior to occupancy. Such Certification shall declare that the construction work has been satisfactorily completed for occupancy in accordance with the approved plans and specifications and all jurisdictional building codes. The Registered Architect, or Professional Engineer, referred to herein shall be prohibited from having any association, or other affiliation with the Contractor.

Rider "C"
Chilled/Condenser Water Requirements

42. This Tenant Alteration Application requires the use of:

_____ Chilled Water _____ Tons __X__ Condenser Water _45_ Tons

43. This Tenant Alteration Application does not require the use of:

__X__ Chilled Water _____ Condenser Water

D. Additional Requirements Resulting From the Review of Contract Drawings and Specifications by the Port Authority

44. See Attachment "B" for technical details.

Initialed:

Applicant: [signature] Date: 2.16.99

Contractor: [signature] Date: 2.16.99

Revised Sept. 1995

WORLD TRADE CF ˜ER
TENANT CONSTRUCTION OR ALTERATION APPLICATION

Tenant: Keefe, Bruyette & Woods, Inc.	Lease No.: WT-3415-B-88,89 (1770)
Contract No.: WTC -	Tenant Alteration Application No.: ~~992108~~ 88th Fl.
Filing Fee No.:	992114 ~~982108~~ 89th Fl.

Rider "F"
General Requirements:

A. 1. The Applicant shall not commence performance of any of the said work prior to the receipt by Applicant of a copy of this Application duly signed in Part Two hereof on behalf of The Port Authority of New York & New Jersey. Upon receipt thereof, the Applicant and Contractor agrees to perform said work in accordance with the following "Information to be Furnished by Applicant" and to comply with, and be bound by all requirements and conditions set forth below under the remarks, if any, in Part Two hereof, and the terms and conditions set forth on the reverse hereof, and any Riders attached.

2. Minimum Insurance Limits, unless specified to be greater, bodily injury $2,000,000.00 each person; $2,000,000.00 each occurrence; property damage $500,000.00 each accident; $500,000.00 aggregate.

Terms and Conditions:

3. The Applicant and Contractor shall indemnify and hold harmless the Port Authority, its Commissioners, Officers, Agents and Employees, against and from:

a) The risk of any and all claims of injuries (including wrongful death), or damage direct, or consequential, to it, or them, or to its, or their property, arising out of, or in connection with the performance of the work, and:

b) The risk of claims and demands by third persons arising, or alleged to arise out of the performance of the work, whether such risks arise out of acts, or omissions of the Applicant, its Contractors, the Port Authority, or otherwise, except where indemnity would be precluded by New York State General Obligations Law.

Initialed:

Applicant: [signature] Date: 2.16.99

Contractor: [signature] Date: 2.16.99

RIDER G
FORM G1

APPLICANT OPTION FOR PROFESSIONAL CERTIFICATION AT THE WORLD TRADE CENTER

Applicant's Name: Keefe, Bruyette & Woods **Tenant Alteration:** **Application:** 992114

Applicant must read the reverse side of this form and sign in the space provided.

OFFICE COPY

By its signature below, Applicant hereby submits this Tenant Alteration Application (hereinafter called the TAA) for Professional Certification at the World Trade Center, and affirm, understand, and agree as follows:

1. Applicant affirms to have met with duly appointed representatives of the Port Authority's (PA) World Trade Department (WTD), have had explained to me and understand the complete TAA process for Tenant construction work when this process is conducted entirely by the PA, as well as when it is conducted under the Professional Certification Program.
2. Applicant affirms to have elected the Professional Certification Program for TAA 992114 (write in number), and will direct the retained Registered Architect or Professional Engineer (hereinafter called the Consultant) to familiarize himself/herself with and conform to the requirements of this Rider.
3. Applicant understands that all TAA's submitted under the Professional Certification Program will be reviewed ONLY for compatibility of the Consultant's design with the WTC's existing structure and systems.
4. Applicant understands that under this Program, the Consultant will prepare all the documents necessary for construction, and will be responsible for certifying that the construction documents prepared in connection with TAA 992114 (write in number) are in compliance with applicable codes and PA technical standards.
5. Applicant understands that under this Program, the Consultant will also be responsible for certifying that the completed construction work in connection with TAA 992114 (write in number) has been performed in accordance with the approved construction documents, and all applicable codes and PA technical standards.
6. Applicant affirms that the Consultant being retained in connection with TAA 992114 (write in number) **(circle A or B, as applicable):**

   A. Has been selected from the PA's list of pre-approved consultants provided to me by the WTD.

   The Consultant's name is: Cetra/Ruddy Inc.

   B. Is not on the list of pre-approved consultants.

   The Consultant's name is NA

   In order to be approved by the PA as eligible for the Professional Certification Program, Applicant will direct the Consultant to submit to the PA, on its letterhead, documentation verifying and/or providing the following:

   i) A current license to practice in New York State.

   ii) That the Consultant has at least five (5) years of experience in the planning and design of office space and has completed at least ten (10) projects totaling in excess of 20,000 square feet constructed in New York City.

   iii) That the Consultant has a current staff appropriate to the size of the job and also shall have available a list of sub-Consultants with whom he/she regularly works, and will identify the number of licensed architects/engineers on his/her staff or the sub-Consultant's staff, and their specific high-rise office alterations experience as it relates to the type and size of the project in the WTC. The Consultant and sub–Consultant shall indicate the credentials, by resume, of all staff to be employed on any WTC project.

   iv) A copy of the Consultant and sub-Consultant's current errors and omissions certificate of insurance, including a 30–day cancellation notice to the PA.

   v) A list of high-rise, office-space alterations previously completed in New York City.The list should include each project's location and owner/lessee of the space, and the owner's/lessee's telephone number The PA will obtain references on these projects

   vi) That the Consultant and sub-Consultants shall have demonstrated satisfactory performance on al Port Authority related work.

FEB 19 1999
INC99-2114 (1)

7. Applicant understands and agrees that each such alteration as described above in 6.B.iii) shall have assigned to it at least one principal of the Consultant and sub-Consultant.

8. Applicant agrees to be responsible for the payment of all filing fees connected with the review of TAA 50214 (write in number).

9. Applicant understands that the PA will review the documentation outlined in 6B. above, and within five (5) business days of its receipt will inform the Consultant and Applicant of approval or disapproval for eligibility for the Professional Certification Program.

10. Applicant understands that should the Consultant be disapproved, that all subsequent consultants selected by the Applicant shall be subject to meeting the requirements of item 6 above, and that for each such subsequent consultant the Applicant will be required to submit to the PA a new and completed form G1.

11. Applicant understands that if the TAA filed under the Professional Certification Program is requested to be withdrawn after approval and prior to the beginning of construction of the work in any form, while still requiring the work to be done, that the Applicant must file a new TAA for the same work, through the WTD, which will be reviewed under the standard TAA process. If Applicant again wishes to file the same work under the Professional Certification Program, Applicant must again submit complete plans, approval lists, and all other completed documents required by the Program. APPLICANT WILL BE PERMITTED ONLY ONE SUCH WITHDRAWAL AND RE-APPLICATION.

12. Applicant understands that within each weekly period 20% of all professionally certified TAA's filed with the WTD will be selected for a complete construction document review for compliance with applicable codes and PA technical standards. Such reviews will occur within 30 calendar days of the TAA's receipt by the WTD, and will be in addition to the review described in item 3 above. If this TAA is selected for review, the Consultant and the Applicant will be so informed within five (5) business days of such decision.

13. Applicant understands that the Consultant and Applicant will be informed within five (5) business days of the completion of such review.

14. Applicant understands that should construction work of any kind have been installed which is in conflict with the findings of the PA, that the Applicant will order such work to cease, direct it to be removed and replaced and/or modified to conform with the review's findings. Such change to the construction work will be based on the Consultant's modified construction documents, which will have been reviewed and approved by the PA.

15. Applicant agrees that all construction work in item 14 above shall be performed at the Applicant's expense.

16. Applicant understands that such modified construction documents cannot be filed under the Professional Certification Program, and will be processed under the PA's standard TAA review process.

Keefe, Bruyette & Woods, Inc.	G. Woelk	2.16.99
Applicant's Name	Applicant's Duly Authorized Representative (print and sign)	Date

RIDER G
FORM G2

CONSULTANT CERTIFICATION FOR TENANT ALTERATIONS AT THE WORLD TRADE CENTER

Consultant's Name: Cetra/Ruddy Inc. **Tenant Alteration Application:** 992114

Consultant must read the reverse side of this form and sign in the space provided.

I am the Consultant for Keefe, Bruyette & Woods, Inc. (Tenant's name), in connection with Tenant Alteration Application (hereinafter called TAA) identified in the title block above, which has been selected for the Professional Certification Program. I have met with the staff of the Port Authority's (PA) World Trade Department (WTD) and have had explained to me the World Trade Center's (WTC) facility-specific technical/design standards, as well as PA wide technical/design standards applicable to the WTC. All such standards will be provided to me in written form at my request.

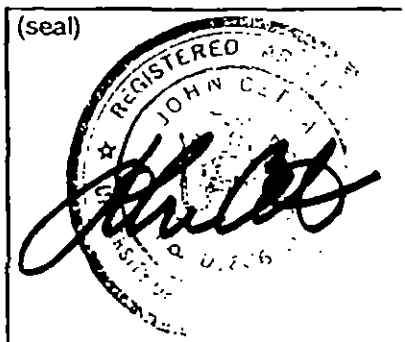
I understand that:

1. All work-types filed under a TAA in this Program must be professionally certified. In instances where multiple work-types are filed by multiple Consultants simultaneously, under one TAA, only one Form G3 is required.
2. Amendments to TAA's which are professionally certified must be professionally certified as well. The PA will determine whether any such filing shall be filed as a new job, and if so, the amendment(s) will receive a new TAA number. If not, the amendment will be considered as part of the original TAA.
3. I will be required to provide the WTD with at least two (2) calendar weeks advance notice as to the date upon which I will submit the construction documents for TAA 992114 (fill in number).
4. With the exception described in items 7 and 8 below, once having filed under the Professional Certification Program, the construction documents will be reviewed ONLY for compatibility with the WTC's existing structure and systems.
5. Within five (5) days of my receipt of the findings resulting from such reviews, I will notify the PA in writing as to the actions I intend to take in regard to these findings, and if such actions result in my revising contract documents, I will also provide copies of such documents to the PA.
6. I must include with my submission under this Program, the COMPLETED forms listed below. Form G4 will be submitted at the completion of construction. All forms must be fully signed by the Applicant, the Contractor, or me, as applicable.
   A. Tenant Alteration Application/(Form PA 531/8-73), and its Riders A (revised 9/93), B, C, and F (revised 5/93).
   B. Form G1, the Applicant Option for Professional Certification (completed by the Applicant).
   C. Form G2, Consultant Certification (completed by me).
   D. Form G3, Items Required at Filing with the WTD (completed by me).
   E. Form G4, Items Required Following Construction Completion (completed by me).
7. Within each weekly period, 20% of all professionally certified TAA's filed with the WTD will be selected for a complete construction document review. Such review will occur within 30 calendar days of the TAA's receipt by the WTD and will, in addition to the review described in item 4 above, include review for compliance with applicable codes and with PA technical standards. If this Application is so selected, the Applicant and I will be so informed within five (5) business days of such decision.
8. The Applicant and I will be informed of the findings of such PA reviews as described in item 7 above, within five (5) business days of the completion of the review. Within five (5) days of my receipt of the findings resulting from such reviews, I will notify the PA in writing as to the actions I intend to take in regard to these findings. If such actions result in my revising contract documents, I will also provide copies of such documents to the PA.
9. At the completion of construction in connection with this TAA, I will be responsible for certifying that the construction work has been executed in accordance with the approved construction documents.
10. I shall indemnify and hold harmless the Port Authority, its Commissioners, Officers, Agents, and Employees against and from
    A. The risk of any and all claims of injuries (including wrongful death), or damage, or direct or consequential, to it or to its property arising out of or in connection with the preparation of the TAA and the construction documents, the inspection of the construction work or the Consultant's certifications;
    B. The risks of claims and demands by third persons arising, or alleged to arise out of the preparation of the TAA and the construction documents, the inspection of the construction work or the Consultant's certification: whether such risks arise out of acts or omissions of the Applicant, its Contractors, the Consultant, the Port Authority or otherwise except where indemnity would be precluded by the New York State General Obligations Law.

CERTIFICATION:

I HAVE READ, UNDERSTOOD, AND CONFORMED WITH ALL THE REQUIREMENTS DESCRIBED ABOVE, AND I HEREBY STATE THAT I HAVE EXERCISED A PROFESSIONAL STANDARD OF CARE IN CERTIFYING THAT THE FILED APPLICATION IS COMPLETE AND IN ACCORDANCE WITH THE APPLICABLE LAWS AND PORT AUTHORITY TECHNICAL STANDARDS. I AM AWARE THAT THE PORT AUTHORITY WILL RELY UPON THE TRUTH AND ACCURACY OF THIS STATEMENT. IF NON-COMPLIANCE IS DISCLOSED, I AGREE TO NOTIFY THE PORT AUTHORITY OF THE REMEDIAL MEASURES WHICH I PROPOSE TO TAKE TO MEET THE REQUIREMENTS OF THE NEW YORK CITY BUILDING CODE AND ITS REFERENCE STANDARDS, THE NEW YORK CITY ELECTRICAL CODE, THE PORT AUTHORITY TECHNICAL STANDARDS, AND ALL APPLICABLE LAWS AND REGULATIONS. I FURTHER AGREE THAT ANY MISREPRESENTATION OR FALSIFICATION OF FACTS MADE KNOWINGLY OR NEGLIGENTLY BY ME, MY AGENTS OR EMPLOYEES, OR ADDITIONALLY, BY OTHERS WITH MY KNOWLEDGE, RENDERS ME LIABLE FOR LEGAL ACTION BY THE PORT AUTHORITY. SUCH MISREPRESENTATION OR FALSIFICATION MAY ALSO RESULT IN TERMINATION OF MY PARTICIPATION IN THE PROFESSIONAL CERTIFICATION PROGRAM AT THE WORLD TRADE CENTER. I ALSO CONSENT TO THE PORT AUTHORITY PROVIDING ANY INFORMATION RELATIVE TO SUCH MISREPRESENTATION OR FALSIFICATION TO ANY AGENCY OR OTHER PERSON OR ENTITY IT DEEMS APPROPRIATE.

(seal)



John Cetra, RA
Consultant's Name

Cetra/Ruddy Inc.

Consultant's Signature

2.16.99
Date

RIDER G
FORM G3

ITEMS REQUIRED AT FILING WITH THE WORLD TRADE DEPARTMENT

Alteration Application: 992114	**Applicant's Name:** Keefe, Bruyette & Woods, Inc.
Location: 2 World Trade Center, 88th Floor & 89th Floor.	

The Consultant is required to make a notation of Yes or No to indicate whether or not the item is included.
THIS APPLICATION FOR PROFESSIONAL SELF-CERTIFICATION WILL BE REJECTED IF ANY INFORMATION IS MISSING, INCOMPLETE, OR NOT PROVIDED AS REQUIRED.

Checklist 1: Document

YES	NO	
	X	N.Y.S. Dep't of Envt Conservation
	X	Fire Alarm Design approved by Fire Dep't
	X	Demolition Drawings
X		Architectural Drawings
X		Egress Analysis Drawings
X		Structural Drawings
X		Electrical Drawings
X		HVAC Drawings
X		Plumbing Drawings
X		Fire Protection Drawings
	X	Cost Estimate for all Trades and Equipment
	X	Hazardous Material (describe below)
		Other (describe below)

Checklist 2: Controlled Inspections

YES	NO	
	X	Welding (27-616)
	X	Aluminum (Table 10-2)
	X	High Strength Bolts (Table 10-2)
	X	Smoke Test (27-868)
	X	Fire Stops (27-345)
	X	Ventilation Systems (27-779)
	X	Fuel Burning/Storage (27-794)
	X	Refrigeration System (27-781)
	X	Plumbing and Gas Piping Test (27-921)
	X	High Pressure Gas (RS 16-P115.8N)
	X	Sprinkler Test (27-967)
	X	Standpipe Test (27-951)
	X	Fire Alarm Test (27-977)
	X	Emergency Generators (27-794)
	X	Structural Stability (R&REG 10/16/92)
	X	Spray on Fireproofing (27-324)
	X	Reinforced Masonry (Table 10-2)
	X	Masonry Units (RS 10-3 3.2)
	X	Concrete (27-603)
	X	Concrete-Precast (27-607)
	X	Concrete Pre-Stressed (27-607)
	X	Concrete Design Mix (27-605)
	X	Concrete Test Cylinders (27-607A(1)
	X	Other (describe below)

NOTES

1. The Consultant is required to provide a complete list of drawings, their titles, drawing numbers and date of completion. The list must be on the Consultant's letterhead, must also include all other documents necessary for the proposed design, be signed by the Consultant and attached to this form.

2. The Consultant must describe his/her proposed remediation to any disclosed code non-conformance. Such description must be on the Consultant's letterhead, signed by the Consultant, and attached to this form.

3. Should the Consultant require additional space to complete either the "Other" or "Hazardous Material" categories, he/she must provide such information on his/her letterhead and attach it to this form.

Consultant Name and Address
J. Cetra Cetra/Ruddy Inc.
584 Broadway, Rm. 401
New York, NY 10012
Seal (P.E. or R.A.) and Signature

Date: 2.16.99

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